# Report on the Scaling of the 2022 NSW Higher School 

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## Preface

In New South Wales student achievement in Stage 6 (Years 11 and 12) is reported in two ways: through the Higher School Certificate Record of Achievement and through the Australian Tertiary Admission Rank (ATAR).

A student's Higher School Certificate Record of Achievement presents a profile of their achievement in the courses they have completed, both academic and vocational. Their achievement is reported in terms of the standards they have reached in the courses they have completed.

In contrast, the Australian Tertiary Admission Rank (ATAR) is a numerical measure of a student's overall academic achievement in the HSC in relation to that of other students. This measure allows the comparison of students who have completed different combinations of HSC courses and indicates the position of a student in relation to other students. The ATAR is calculated solely for use by universities, either on its own or in conjunction with other selection criteria, to rank and select school leavers for admission to university.

Calculation of the ATAR is the responsibility of the Technical Committee on Scaling on behalf of the NSW ViceChancellors' Committee. The NSW Education Standards Authority (NESA) provides the HSC data from which the ATARs are calculated and the Universities Admissions Centre (UAC) advises individual students of their ATARs.

This report contains information on the calculation of the ATAR in 2022.

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## Acknowledgements

Calculating individual ATARs each year and distributing them to the students who requested them is a major task. It requires a high degree of expertise, commitment and co-operation between the staff of several agencies:
■ staff of the NSW Education Standards Authority (NESA) who supply the HSC data from which the ATARs are calculated

- staff of UAC who distribute the ATARs to individual students, handle enquiries from students following the release of the results and distribute information about the ATAR to schools during the year
- members of the Technical Committee on Scaling who play a central role with responsibility for translating policy decisions into processes, and for developing and maintaining programs that ensure the integrity of the data and the accuracy of the individual ATARs
- those members of the Technical Committee on Scaling who work closely with the Chair of the Committee when the ATARs are calculated, and at other times during the year.

Without the skill and commitment of these people, the calculation and distribution of the ATARs would not be possible.


## Definitions

## ABS

The ABS is the Australian Bureau of Statistics.

## ATAR cohort

ATAR cohort is used to refer to those students who received an ATAR in a particular year. The students may have accumulated courses over a five-year period.

## ATAR courses

ATAR courses are Board Developed courses for which there are examinations conducted by NESA that yield graded assessments. Life Skills courses and Board Endorsed courses are not ATAR courses. If students wish to have English Studies, Mathematics Standard 1 or a VET course contribute to their ATAR eligibility requirements and calculation, they must enrol in the appropriate additional examination course and complete the examination.

## Board Developed Courses

Board Developed courses are courses whose syllabuses have been developed by NESA.

## Board Endorsed Courses

Board Endorsed courses are courses whose syllabuses have been approved by NESA but which do not have formal examinations conducted by NESA.

## HSC cohort

HSC cohort refers to students who have completed at least one ATAR course in a particular year.

## NESA

NESA refers to the NSW Education Standards Authority (NESA).

## VET examination courses

The VET Curriculum Frameworks are based on training packages where the assessment is competency based. As competency-based assessment does not yield a mark that can be used in the ATAR calculations, NESA introduced an additional course for each VET Curriculum Framework that includes an examination. If students wish to have a VET course contribute to their ATAR eligibility requirements and calculation, they must enrol in the appropriate additional course and complete the examination. These additional courses are termed VET examination courses. Students who do not want their VET courses to contribute towards their ATARs are not required to complete these optional examinations.

## 1 The Higher School Certificate (HSC)

The Higher School Certificate (HSC) is an exit certificate awarded and issued by NESA. It marks the completion of 13 years of schooling, is the gateway to further study and employment, and presents a profile of student achievement in a set of courses.

### 1.1 Eligibility for an HSC

To qualify for an HSC, students must complete a pattern of Preliminary and HSC courses containing at least 12 units of Preliminary courses and at least 10 units of HSC courses.

These HSC courses must include at least:

- six units of Board Developed courses
- two units of a Board Developed course in English
- three courses of two unit value or greater (either Board Developed or Board Endorsed courses)
- four subjects.

Further details about HSC eligibility and HSC courses can be found on NESA's website.

### 1.2 Reporting student achievement in the HSC

For most ATAR courses, NESA reports student achievement against published standards by:

- an examination mark
- a school assessment
- an HSC mark
- a performance band.

These results are shown on a student's Record of Achievement. A Course Report is also provided for most Board Developed courses. The report describes the standard achieved in the course using performance bands and provides a graph indicating the student's position in the course candidature.

### 1.2.1 Defining standards by performance bands

Standards in a course are described in terms of the content, skills, concepts and principles relevant to the course and represent the range of achievement expected of students completing the course. Performance band descriptors, which describe typical achievement at different standards (bands), have been developed for each course. There are six performance bands for 2-unit courses and four performance bands for Extension courses.

The percentage of students in any performance band depends only on how many students enrolled in that course perform at the standard specified by the performance band descriptor. There are no predetermined percentages of students to be placed in the performance bands.

It follows that, although the standards described by the performance bands in a course will be the same from year to year, standards in different courses are not the same as they are based on different criteria. Because of this, it should not be expected that the percentages of students in the six bands will be the same across courses. For any course, the percentages will also vary from year to year if the performance of the cohort choosing that course changes.

The ranges of marks for the bands are as follows:

## 2-unit courses

| Band | 1 | 2 | 3 | 4 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Mark range | $0-49$ | $50-59$ | $60-69$ | $70-79$ | $80-89$ | $90-100$ |

Extension courses (except Mathematics Extension 2)

| Band | E1 | E2 | E3 | E4 |
| :--- | :--- | :--- | :--- | :--- |
| Mark range | $0-24$ | $25-34$ | $35-44$ | $45-50$ |

Mathematics Extension 2*

| Band | E1 | E2 | E3 | E4 |
| :--- | :--- | :--- | :--- | :--- |
| Mark range | $0-49$ | $50-69$ | $70-89$ | $90-100$ |

*Mathematics Extension 2 students have their achievement for both Mathematics Extension 1 and Mathematics Extension 2 reported using four bands but the mark range is out of 100 rather than 50 .

### 1.2.2 Examination marks

The examination mark reported on a student's Record of Achievement indicates the standard a student has attained in that examination. If, for example, a student's performance in the Society and Culture examination is at the standard described for Performance Band 3, the examination mark reported on their Record of Achievement for that course will lie between 60 and 69. In general, this mark, termed the aligned examination mark, will differ from the mark the student actually gained on the examination (the raw examination mark).

The aligned mark indicates the standard reached by a student and their position in the performance band. For example, a mark of 62 means that, while the student has performed at a Performance Band 3 standard, their achievement is towards the bottom of this band.

### 1.2.3 School assessments

To enable school assessments from different schools to be compared, marks submitted by schools (raw assessments) are first moderated using the raw examination marks gained by their students and then aligned to course standards. The school assessments reported on a student's Record of Achievement are the aligned assessments.

The process used for the moderation of school assessments and subsequent alignment with standards ensures that the rank order of a school's students in a course is maintained.

### 1.2.4 HSC marks

For each course, students receive three marks - an examination mark, a school assessment and an HSC mark - all of which have been aligned to NESA's published standards and rounded to whole numbers. The HSC mark is the average of the examination mark and the school assessment. It is the HSC mark that determines a student's performance band for the course.

Further details about NESA's processes can be found on NESA's website.

# 2 The Australian Tertiary Admission Rank (ATAR) - an overview 

### 2.1 Background

The Australasian Conference of Tertiary Admission Centres (ACTAC) agreed that, as of 2010, all states and territories would adopt a common name for the ranking index used to rank students for university admission. The agreed name was the Australian Tertiary Admission Rank (ATAR). The name change was to emphasise the common scale used for reporting student ranks. NSW and the ACT adopted the new name in 2009.

The ATAR is a numerical measure of a student's overall academic achievement in the HSC in relation to that of other students. This measure allows the overall achievement of students who have completed different combinations of HSC courses to be compared. The ATAR is calculated solely for use by tertiary institutions, either on its own or in conjunction with other criteria, to rank and select school leavers for admission. Calculation of the ATAR is the responsibility of the Technical Committee on Scaling on behalf of the NSW Vice-Chancellors' Committee.

The ATAR, which aims to provide a fair and equitable method of ranking applicants from all states, is based on the assumption that the age cohorts from which the states' Year 12 cohorts are drawn are equally able to undertake tertiary study. That is, if everyone in the age group completed Year 12, it would be fair to consider the same proportion of each state's students as admissible to any particular university course.

The result of this procedure in NSW is a number which represents the position of a student in the appropriate age cohort, based on their overall academic achievement in the HSC.

From 1998 until 2013 NSW used data from the School Certificate tests administered by NESA as the link that enabled the positions of HSC students relative to their Year 10 group to be estimated from their positions relative to their Year 12 group. With the move to the ATAR in 2009, the School Certificate group was augmented to more accurately reflect the entire HSC aged population of the state. The last School Certificate tests were held in 2011 so that procedure is no longer available.

From 2014 to 2016, a two-parameter logistic function was used to translate the HSC students' positions based on their scaled aggregate marks into ATARs. This was consistent with the procedure that had been used in most other jurisdictions without Year 10 examinations.

In 2016, all jurisdictions agreed to transition to a consistent process using a one-parameter cubic spline function, depending only on the proportion of the age cohort that is ATAR eligible, as the means for converting student aggregates into ATARs. This was implemented in NSW in 2017, and with Queensland adopting the same methodology in 2020, all jurisdictions across Australia are now using the one-parameter cubic spline function. It should be emphasised that these changes do not alter the rank order of students, and that the changes in methodology outlined above are sufficiently small to permit valid comparisons of ATARs obtained in different years.

The ATAR is calculated as a number between 0 and 99.95 with increments of 0.05 . The ATAR is not a mark. Specifically, a student's ATAR indicates the position of that student relative to the entire HSC aged population of the state. Students who receive an ATAR of 80.00 in 2022, for example, have performed well enough in the HSC to place them 20 per cent from the top if every HSC aged person in the state had been ATAR-eligible.

Students who indicate on their HSC entry forms that they wish to be notified of their ATARs will receive an ATAR Advice Notice from UAC. ATARs are also made available to institutions for selection purposes.

### 2.2 Categorisation of ATAR courses

ATAR courses are assessed by formal examinations conducted by NESA and have sufficient academic rigour to be regarded as suitable preparation for university study.

ATAR courses are classified as either Category A or Category B courses. The criteria for Category A courses are academic rigour, depth of knowledge, the degree to which the course contributes to assumed knowledge for tertiary studies, and the coherence with other courses included in the ATAR calculations. Category B courses are those whose level of cognitive and performance demands are not regarded as satisfactory in themselves, but their contribution to a selection index is regarded as adequate if the other courses included in the aggregate are more academically demanding. Note that English Studies Examination, a Category B course introduced in 2019, can be used by students to satisfy the two units of English requirement for ATAR-eligibility.

The Category B courses in 2022 were:

- Automotive Examination ■ Hospitality Examination
- Business Services Examination
- Human Services Examination
- Construction Examination
- Information and Digital Technology
- Electrotechnology Examination
- Mathematics Standard 1 Examination
- English Studies Examination
- Primary Industries Examination
- Entertainment Industry Examination
- Retail Services Examination
- Financial Services Examination
- Tourism, Travel and Events Examination


### 2.3 Eligibility for an ATAR in 2022

To be eligible for an ATAR a student must have satisfactorily completed at least 10 units of ATAR courses, which included at least:

- eight units of Category A courses
- two units of English
- three courses of two units or greater
- four subjects.


### 2.4 Calculation of the ATAR

The ATAR is based on an aggregate of scaled marks in 10 units of ATAR courses comprising:

- the best two units of English
- the best eight units from the remaining units, provided that no more than two units of Category $B$ courses are included in the 10 units that contribute to the ATAR calculation.

Marks to be included in the ATAR calculations can be accumulated over a five-year period but if a course is repeated only the last satisfactory attempt is used in the calculation of the ATAR.

For students accumulating courses towards their HSC, scaled marks are calculated in the year the courses are completed.

### 2.5 The ATAR Advice Notice

The ATAR Advice Notice includes:

- the student's ATAR
- a list of the ATAR courses which the student studied and the categorisation of each course
- the number of units of each ATAR course that were actually included in the calculation of the ATAR.

While ATARs are calculated for all ATAR-eligible students, only those students who indicate on their HSC entry forms that they wish to be notified of their ATAR will receive an ATAR Advice Notice from UAC.

There are two circumstances where an ATAR will not be shown on the ATAR Advice Notice. The first is when a student receives an ATAR between 0.00 and 30.00 , in which case the ATAR will be indicated as ' 30 or less'. The second is when the student has not met the requirements for an ATAR, in which case the statement 'Not Eligible' will appear.

An example of an ATAR Advice Notice is given below.

| UAC |  |  |  |
| :---: | :---: | :---: | :---: |
| AUSTRALIAN TERTIARY ADMISSION RANK. 2022 ADVICE |  |  |  |
|  |  |  |  |
| Shown below are the ATAR courses which were available for inclusion in the ATAR, together with the units that were actually included in the calculation. Information about ATAR eligibility and the calculation of the ATAR are available at http://www.uac.edu.au/atar |  |  |  |
| Course name | Cotegory | Unitue | Units included in <br> calculation of ATAR |
| Englian Standord | A | 2 | ${ }^{2}$ |
| ${ }^{\text {Geography }}$ | A | 2 | $\stackrel{2}{2}$ |
| Legal Studies | A | 2 | ' |
| Mathematics Advanced Sudies of Reilion | A | ${ }_{1}$ | ${ }^{2}$ |
| Hospitality Examination | ${ }_{8}$ | 2 | 2 |
| Dr David Christie Managing Director |  |  |  |

## 3 Calculating the ATAR in 2022

### 3.1 Overview

Tertiary institutions are concerned with ranking school leaver applicants. From their perspective, the importance of HSC marks is that they convey information about a student's position in relation to other students.

With the exception of English, which is compulsory, students are free to choose their courses of study. Consequently, individual course candidatures vary in size and nature, and there are many different enrolment patterns. In 2022 there were 25,171 different enrolment patterns for ATAR eligible students; only 239 of these 25,171 combinations were completed by 20 or more students and 18,090 were taken by only one student. Given the choice available, it follows that a student's rank in different courses will not necessarily have the same meaning, as good rankings are more difficult to obtain when the student is competing against students of high academic ability.

Because of the lack of comparability of HSC marks achieved in different courses, either when reported against standards or in terms of ranking, marks of individual students are scaled before they are added to give the aggregates from which the ATARs are determined.

The scaling process is designed to encourage students to take the courses for which they are best suited and which best prepare them for their future studies. The underlying principle is that a student should neither be advantaged nor disadvantaged by choosing one HSC course over another. The scaling algorithm determines what students' marks would have been if all courses had been studied by all students and all courses had the same distribution of marks.

The scaling model assumes that a student's position in a course depends on the student's developed ability in that course and the 'strength of the competition'. Since the ATAR is a rank that reflects academic achievement, 'strength of the competition' is defined in terms of the demonstrated overall academic attainment of a course candidature.

Scaling first modifies the mean, the standard deviation (SD) and the maximum mark in each course. Adjustments are then made to the marks of individual students to produce scaled marks, which are the marks the students would have received if all courses had the same candidature and the same mark distribution.

Although scaled marks are generally different from the raw marks from which they are derived, the ranking of students within a course is not changed.

Once the raw marks have been scaled, aggregates are calculated for ATAR-eligible students. In most cases, the ranking or order of merit based on these aggregates is quite different from the order of merit using aggregates based on HSC marks.

The penultimate step is to determine what the percentiles would have been if all HSC-aged persons in the state were eligible for an ATAR. The last step is to truncate these percentiles to the nearest 0.05 . These are the ATARs.

Each ATAR corresponds to a range of aggregates. The target for the number of students with each ATAR varies and is calculated using the cubic spline function referred to in section 2.1. The presence of candidates tied on the same aggregate means that the actual number of students with each ATAR may differ slightly from the calculated target.

The scaling process is carried out afresh each year. It does not assume that one course is intrinsically more difficult than another or that the quality of the course candidature is always the same. All students who complete at least one ATAR course in a given year are included in the scaling process for that year. Students who are accumulating courses towards their HSC have their scaled mark for each course calculated in the year that the course is completed.

### 3.2 The scaling process in 2022

The scaling procedure used to produce ATARs in 2022 was unchanged from that used in 2021.

### 3.2.1 Marks used in the ATAR calculations

For each course a student completes, NESA provides the following marks:

- a raw examination mark
- a raw moderated school assessment ${ }^{1}$
- an examination mark, which has been aligned to course standards
- a moderated school assessment, which has been aligned to course standards
- an HSC mark.

All marks are provided on a one-unit basis to one decimal place. In the description of the scaling process that follows, to cater for both 2-unit and Extension courses, marks are described on a one-unit basis.

### 3.2.2 Raw HSC marks

Raw HSC marks, rather than NESA's reported HSC marks, are used in the scaling process. A student's raw HSC mark in a course is the average of their raw examination mark and their raw moderated school assessment. These marks are not reported to students.

### 3.2.3 Combined courses

As NESA places English Studies, English Standard and English Advanced raw marks on a common scale, these courses are combined and scaled as a single course but are reported as separate courses in order to be consistent with NESA's reporting practice.

Similarly, while the examinations for the Automotive, Information and Digital Technology, and Hospitality VET Frameworks are separated into two or more streams, NESA places the raw examination marks for the various streams in each framework on a common scale. Consequently, the Automotive Exam, Information and Digital Technology Exam and Hospitality Exam are each scaled as a single course.

In 2020, NESA implemented changes to the examination arrangements for Mathematics Standard 1, Mathematics Standard 2 and Mathematics Advanced which enables them to provide additional information which could be used as the basis for placing the raw marks of these three courses on a common scale. Currently, neither NESA, nor the ATAR calculation process make any use of this data. While studies are being undertaken to evaluate its usefulness and reliability for ATAR calculation, there are no current plans to change the scaling procedures used for these courses. If it is determined that changes are desirable, they will be announced before the first cohort affected begins their Year 11 studies.

### 3.2.4 Initial standardisation

Before the scaling algorithm is implemented, a linear transformation is applied to the raw HSC marks in each course to set the top mark to a common value. The marks in each course are then standardised to a mean of 25 and standard deviation of 12 on a one-unit basis.

[^0]
### 3.2.5 Calculating scaled means and standard deviations

The model underpinning the scaling algorithm specifies that the scaled mean in a course is equal to the average academic achievement of the course candidature where, for individual students, the measure of academic achievement is taken as the average scaled mark in all courses completed. The model specification leads to a set of simultaneous equations from which the scaled means of 2-unit courses are calculated.

The scaled standard deviation for a 2-unit course is the standard deviation of the measure of overall academic achievement of the candidature of that course.

For Extension courses, the scaled means and standard deviations are determined by the performance of the Extension students on the corresponding 2-unit courses. The exceptions are History Extension which can be completed by both Modern History and Ancient History students, Science Extension which can be taken by students doing up to three 2-unit science courses (out of Biology, Chemistry, Earth and Environmental Science, Investigating Science and Physics), and the second Extension courses in English and Mathematics: English Extension 2 and Mathematics Extension 2.

A scaled mean is determined for the Modern History students in History Extension on the basis of their performance in the 2-unit Modern History course. A scaled mean for the Ancient History students in History Extension is found in a similar manner. The scaled mean for History Extension is then set equal to the weighted average of these two scaled means. The scaled standard deviation is found in a similar manner.

In the same way, the scaled mean and standard deviation of Science Extension are the weighted average of the scaled means and standard deviations of five groups of students, with each of the scaled mean and standard deviation calculated for students in Science Extension on the basis of their separate performances in 2-unit Biology, Chemistry, Earth and Environmental Science, Investigating Science and Physics.

Scaled means and standard deviations for English and Mathematics Extension 1 courses are calculated as described above. The scaled mean and standard deviation for the Mathematics Extension 2 course are then determined by the performance of the Extension 2 students in the Mathematics Extension 1 course. For English Extension 2, the scaled mean and standard deviation are determined by the performance of the Extension 2 students in English Advanced. (This option is not available for mathematics as the Extension 2 students do not complete the 2-unit Mathematics Advanced paper.)


### 3.2.6 Setting maximum marks

The maximum scaled mark in a course is determined according to the academic quality of the course candidature in such a way that the maximum scaled mark for the combined 2-unit English candidature is 50 on a one-unit basis. With the introduction of English Studies Examination in 2019, the combined 2-unit English candidature consists of students who have taken English Studies Examination, English Standard and English Advanced.

In 2022 the maximum scaled mark in a course was given by the smaller of 50 and the scaled mean +2.46 times the initial scaled standard deviation, where the scaled mean and initial scaled standard deviation of the course are determined using the scaling algorithm.

The multiple, which in 2022 was 2.46, is calculated afresh each year using the scaled mean and initial scaled standard deviation in English.

### 3.2.7 Scaling individual marks

Once the scaled means and standard deviations are determined, individual raw marks are scaled using a non-linear transformation which preserves the scaled mean and standard deviation of a course and restricts the scaled marks to the range (0-50).

If this transformation results in a maximum scaled mark which is less than the maximum scaled mark described in 3.2.6, a further linear transformation is applied. The effect of this linear transformation is to increase the standard deviation so that the actual maximum scaled mark in the course is changed to be the same as the maximum scaled mark described in 3.2.6. This further transformation does not affect the scaled mean. In all tables presented in this report, the modified scaled standard deviations rather than the initial scaled standard deviations are shown.

For some courses with very small candidatures the non-linear transformation is not always appropriate, in which case alternative transformations, which are consistent with the principles of the scaling algorithm, are used.

### 3.2.8 Calculating aggregates and ATAR-eligible percentiles

Aggregates of scaled marks are calculated to one decimal place according to the rules described in section 2.4. In 2022 there were 4,509 distinct aggregates. There are a large number of tied results with some aggregates shared by 30 or more students.

Table 3.1 shows the ATAR-eligible percentiles (the percentage of the ATAR cohort with who have received an aggregate mark less than or equal to a given aggregate) corresponding to selected aggregates for the 2022 ATAR cohort. From the table, it can be seen that, for example, 77.0 per cent of the 2022 ATAR cohort received an aggregate mark of 350 or less.

Table 3.1 ATAR-eligible percentiles corresponding to selected aggregates in 2022

| Aggregate | ATAR-eligible percentile |
| :---: | :---: |
| 450.0 | 98.4 |
| 400.0 | 90.1 |
| 350.0 | 77.0 |
| 300.0 | 61.0 |
| 250.0 | 44.9 |
| 200.0 | 29.1 |
| 150.0 | 15.2 |

### 3.2.9 Calculating the ATAR

Since 2017, a one-parameter cubic spline model has been used in NSW to translate the ATAR-eligible percentiles into ATARs. This model was adopted by some jurisdictions in 2016, was used in all jurisdictions except Queensland from 2017, and was adopted by Queensland in 2020. The model depends only on the participation rate observed in the jurisdiction.

The specific form of the cubic spline function depends on the proportion of students in the target population who are ATAR-eligible. This proportion is called the participation rate. The target population served by UAC consists of students from the ACT and NSW. In 2022 the ACT and NSW combined participation rate, determined using ABS data, was 55.6 per cent, down from 57.2 per cent in 2021. To avoid distortions to the model that might impact the comparability of ATARs obtained in different jurisdictions, the processes described in this section are implemented with reference only to the results of students whose studies took place in NSW or the ACT and who were aged 16-20 on 30 June 2022.

For jurisdictions with participation rates between 25 percent and 75 percent, the model expects that the proportion of people whose percentile rank within the target population is x who will be ATAR eligible is given by

$$
\frac{x^{3}}{(1000 \alpha)^{2}} \text { if } 0 \leq x \leq 100 \alpha \text { and } 1-\frac{(100-x)^{3}}{(1000-1000 \alpha)^{2}} \text { if } 100 \alpha \leq x \leq 100
$$

where $\alpha$ is $1.5-2^{*}$ (participation rate). In 2022 , the value of $\alpha$ in NSW was 0.39 .

In particular, the model expects all the most able candidates to complete Year 12 and be eligible for an ATAR, and so the top category should contain 1/2000th of the target population. In 2022 this target frequency for an ATAR of 99.95 was $\mathrm{N}=51$ for ACT and NSW combined, meaning that the number of students from these two jurisdictions receiving 99.95 should not exceed 51.

With the 2022 ACT and NSW combined participation rate, the model expects that $92.8 \%$ of candidates who are at the 70th percentile in the target population will complete Year 12 and be eligible for an ATAR. Accordingly, the target frequency for an ATAR of 70.00 is $92.8 \%$ of $1 / 2000$ th of the target population, which was 46 students.

In order to implement this model, each ACT student is allocated a notional aggregate using the process to equate NSW HSC and ACT Board of Senior Studies results in use since 2006. (Annual studies are undertaken to ensure that this process continues to be valid). Starting with the highest aggregate, the candidates are progressively allocated to ATAR bands to achieve the cumulative target frequencies, without exceeding them. (In 2022, the 99.95 ATAR category consisted of 48 NSW students and 2 ACT students.) There is noise in the allocation due to ties in the aggregates. The resulting pattern is shown in Figure 3.1.

Figure 3.1 Percentage of NSW and ACT ATAR-eligible students in each ATAR truncated category in 2022


The relationship between the NSW ATAR and ATAR-eligible percentile in 2022 is shown in Figure 3.2.

Figure 3.2 The relationship between NSW ATAR and ATAR-eligible percentile in 2022


The relationship between aggregates and ATARs in 2022 is shown graphically in Figure 3.3.

Figure 3.3 Relationship between aggregate and NSW ATAR in 2022


Each ATAR corresponds to a range of aggregate marks. The range of aggregates corresponding to one ATAR is greatest in the extremes of the distribution of aggregates and smallest near the middle of the distribution of aggregates. Table 3.2 gives ATARs for selected aggregates based on the 2022 data.

Table 3.2 Relationship between NSW aggregate and ATAR in 2022

| Aggregate | ATAR |
| :---: | :---: |
| 450.0 | 99.05 |
| 400.0 | 94.40 |
| 350.0 | 86.95 |
| 300.0 | 77.80 |
| 250.0 | 68.15 |
| 200.0 | 57.85 |
| 150.0 | 47.25 |

## 4 The HSC and ATAR in 2022 - some results

### 4.1 Overview

A total of 74,300 students completed at least one HSC course in 2022, but 4,782 were removed from the database as they completed no ATAR course. Of the remaining pool of 69,518 students, 88.9 per cent received an HSC and 78.1 per cent received an ATAR. There were 241 students who received an ATAR but did not receive the HSC award, primarily because they had not yet provided evidence of meeting the minimum standards in literacy and numeracy, a requirement for the HSC award as introduced by NESA in 2020. While courses contributing to the underlying aggregate may be accumulated over a five-year period, 92.3 per cent of those receiving an ATAR in 2022 included only 2022 courses in their aggregate.

The percentage of students enrolled in at least one ATAR course who were female was 52.9 per cent (slightly more than 52.8 per cent in 2021), and 54.0 per cent of students who received an ATAR were female (down from 54.3 per cent in 2021).

### 4.2 Percentage of students receiving an ATAR

HSC students who do not receive an ATAR fall into one of two broad groups:

- Those who are studying less than 10 units. These include private study students who enrol in one or two courses, mature age students who are studying a limited HSC program and students who are accumulating their HSC over two or more years.
- Those who enrol in a full HSC program which does not satisfy the requirements for an ATAR. These students normally complete six or eight units of Board Developed courses, and choose the remaining units from Board Endorsed courses. They receive an HSC but not an ATAR. In 2022 there were 7,731 such students.

Table 4.1 Proportion of students receiving an ATAR, 2018-2022

|  | Students receiving an ATAR |  |  |
| :---: | :---: | :---: | :---: |
| Year | HSC candidature | Number | $\%$ |
| 2018 | 71,407 | 56,127 | 78.6 |
| 2019 | 69,560 | 55,031 | 79.1 |
| 2020 | 70,466 | 54,894 | 77.9 |
| 2021 | 70,416 | 54,841 | 77.9 |
| 2022 | 69,518 | 54,308 | 78.1 |

### 4.3 Number of units of ATAR courses completed

The pattern in 2022 was similar to that observed in 2021, with 49.5 per cent completing exactly 10 ATAR units and 24.7 per cent completing more than the required minimum number of ATAR units (Table 4.2).

Table 4.2 Percentage of students completing specified numbers of units ${ }^{1}$ of ATAR courses, 2019-2022

|  |  |  |  | 2022 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of units | $\begin{gathered} 2019 \\ \% \end{gathered}$ | $\begin{gathered} 2020 \\ \% \end{gathered}$ | $\begin{gathered} 2021 \\ \% \end{gathered}$ | \% | Number |
| 1 | 0.7 | 0.7 | 0.9 | 0.9 | 611 |
| 2 | 7.3 | 8.0 | 7.7 | 8.4 | 5,852 |
| 3 | 0.5 | 0.6 | 0.6 | 0.8 | 539 |
| 4 | 4.2 | 4.4 | 4.4 | 4.7 | 3,275 |
| 5 | 0.2 | 0.1 | 0.1 | 0.1 | 85 |
| 6 | 4.3 | 4.6 | 4.5 | 5.1 | 3,579 |
| 7 | 0.1 | 0.1 | 0.2 | 0.3 | 196 |
| 8 | 3.0 | 3.1 | 3.1 | 4.4 | 3,046 |
| 9 | 0.1 | 0.1 | 0.1 | 1.2 | 852 |
| 10 | 49.0 | 49.3 | 50.1 | 49.5 | 34,381 |
| 11 | 17.5 | 16.8 | 16.7 | 15.6 | 10,836 |
| 12 | 11.3 | 10.7 | 10.2 | 8.3 | 5,737 |
| 13 | 1.3 | 1.2 | 1.1 | 0.7 | 485 |
| 14 | 0.3 | 0.3 | 0.2 | 0.1 | 41 |
| 15+ | 0.1 | 0.0 | 0.1 | 0.0 | 3 |
| HSC cohort | 69,560 | 70,466 | 70,416 |  | 69,518 |

${ }^{1}$ The units include current year units and units accumulated in previous years.

### 4.4 Course enrolments - Table A1

Table A1 in the Appendix provides for each course the size of the candidature, the number who received an HSC in 2022, the number who received an ATAR in 2022, the percentage of females and the maximum ATAR gained by a student enrolled in that course. The table includes students who completed the course in 2022 as well as those who completed the course in previous years and completed at least one ATAR course in 2022. The table excludes courses where there were less than 10 students.

What is clear is that in almost all courses some students gained an ATAR in excess of 95.00, and for the majority of courses the maximum ATAR is higher.

In Table A6 we have included a column showing for each course the maximum ATAR of any student doing the course in any year and including all units from that course in the ATAR calculation. For the vast majority of courses, the values for the maximum ATAR in Tables A1 and A6 agree.

The pattern of 'male-dominated' and 'female-dominated' courses was similar to the pattern exhibited previously. Female students were in the majority in languages, creative arts and the humanities, while males were in the majority in technology and computing courses.

A total of 14,800 students enrolled in at least one VET course, of which 11,118 students (or 75.1 per cent) enrolled in a VET examination course.

Overall, 78.1 per cent of the 2022 HSC cohort received ATARs but the percentage varied across courses, from 58.8 per cent to 99.8 per cent for Category A courses with candidatures exceeding 100. For students enrolled in any VET courses, the overall figure was 60.6 per cent but was higher, at 79.6 per cent, for students enrolled in VET examination courses.

### 4.5 Distributions of HSC marks - Table A2

Table A2 in the Appendix shows the distributions of HSC marks in 2022. For each course the percentage of students in Bands 2 to 6 are given, together with the median HSC mark and the Band in which the median lies. Data are not provided for courses with less than 10 students.

Since the introduction of standards referenced reporting in 2001, marks reported to students have not been constrained to a set distribution. Students demonstrating the highest level of achievement in a 2-unit course are placed in Band 6 and receive HSC marks of 90 and above. The data show clearly that patterns of HSC marks vary across courses.

There are few students in Band 1. For most 2-unit courses the median HSC mark lies in Band 4.

Comparison of Table A2 with the corresponding table in 2021 shows that distributions of HSC marks have changed for some courses (see section 5.1).

### 4.6 Descriptive statistics of HSC and scaled marks - Table A3

Table A3 in the Appendix presents, for each course, descriptive statistics and the 99th, 90th, 75th, 50th and 25 th percentiles for HSC and scaled marks. Data is not provided for courses with less than 10 students or courses in which all the students have a total of less than 25 results from other current year scaling courses. Percentiles are not included for courses with less than 40 students.

Although HSC marks are not used as the basis for scaling they are shown in Table A3 because raw marks are not released to students or teachers and hence cannot be presented in this report. Scaled marks are generally lower than HSC marks: few students receive HSC marks less than 25 (on a one-unit basis) whereas the average scaled mark for the total HSC candidature is approximately 25 .

In the table, marks are shown on a one-unit basis, so the range is 0 to 50 . The percentiles in a course are based on all students completing that course in 2022 irrespective of whether they were eligible for an ATAR or not.

When reading the table, it must be remembered that an HSC mark indicates a standard reached whereas a scaled mark reflects the position a student would have obtained in the course candidature had all students completed that course. Because HSC marks and scaled marks serve different purposes, comparing HSC and scaled marks is of little value and can lead to misinterpretations that may adversely affect student choices of courses to study.

Table A3 should not be used as a simple HSC to scaled mark conversion table for reasons explained below.

NESA reports HSC marks rounded to the nearest integer whereas raw marks are calculated to one decimal place. NESA aligns the raw marks to bands that best describe the standards that the students achieve.

This can compress a range of raw marks to a smaller number of HSC marks. For example, all Band E4 performances in an Extension course (except for Mathematics Extension 2) are allocated one of the six integer grades 45.0 to 50.0. Thus after aligning and rounding, for each HSC mark there can be a range of raw marks and hence a range of scaled marks. There is, in general, no unique scaled mark for an HSC mark.

A given HSC mark often corresponds to a range of raw and scaled marks and hence to a range of percentiles. Table A3 gives the HSC mark at the specified percentile. Not all students with that HSC mark will be at that percentile when the raw marks are considered. For example, in History Extension the HSC mark at the 90th percentile was 47.0. Students with a History Extension HSC mark of 47.0 in fact corresponded to the scaled mark percentile range 88.3 to 95.7.

The scaled marks reported in Table A3 are the scaled marks at the specified percentiles. The 90th percentile of the scaled mark distribution in History Extension was 42.8 but there was a range of scaled marks achieved by those with an HSC mark of 47.0.

Looking at French Continuers in Table A3 we see that the maximum mark and 99th percentiles of the HSC distribution are both 49.0 whereas the scaled marks at maximum is 50 and for the 99 th percentiles is 49.3 . This illustrates that there is not a unique scaled mark corresponding to a given HSC mark.

The primary purpose of Table A3 is to show the relativities between courses. For example, Table 4.3 shows the scaled marks corresponding to the 90th and 50th percentiles for English Extension 1, Information Processes \& Technology and PDH\&PE.

Table 4.3 Scaled marks for selected percentiles

|  |  | Scaled mark for |  |
| :--- | :---: | :---: | :---: |
| Course | Scaled mean | $P_{90}$ | $P_{50}$ |
| English Extension 1 | 36.2 | 44.0 | 37.0 |
| Information Processes \& Technology | 22.4 | 37.4 | 21.9 |
| PDH\&PE | 22.8 | 37.3 | 22.3 |

Information Processes \& Technology and PDH\&PE have similar scaled means and similar scaled marks corresponding to the 90th percentile. English Extension 1 has a higher scaled mean and higher scaled marks at corresponding percentiles. The table shows that the students who are at the 90th percentile of the Information Processes \&Technology and PDH\&PE candidatures have similar scaled marks for those courses to the middle candidate in English Extension 1.

### 4.7 Distribution of ATARs - Table A7

Table A7 in the Appendix shows the distribution of ATARs. ATARs are not evenly distributed. For most ATARs the number of students on that ATAR lies between 20 and 50 . The number of students on an ATAR is less for lower ATARs.

An ATAR of 99.00 does not represent the top 1 per cent of the ATAR cohort; 1.8 per cent of the 2022 ATAR cohort actually gained an ATAR of 99.00 or above. It does, however, represent the level of achievement necessary to be in the top 1 per cent if all HSC-aged people in NSW had completed studies that made them ATAR eligible in 2022. From Table 4.4 we see that in 202217.7 per cent of the ATAR-eligible students received an ATAR of 90.00 or above and 35.2 per cent gained an ATAR of 80.00 and above.

Table 4.4 Percentage of ATAR students receiving specific ATARs and above, 2018-2022

| ATAR | 2018 \% | 2019 \% | 2020 \% | 2021 \% | 2022 \% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 99.00 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 |
| 95.00 | 8.3 | 8.4 | 8.5 | 8.6 | 8.8 |
| 90.00 | 16.7 | 16.8 | 17.0 | 17.1 | 17.7 |
| 80.00 | 33.3 | 33.4 | 33.9 | 34.2 | 35.2 |
| 70.00 | 49.5 | 49.6 | 50.3 | 50.7 | 52.1 |
| 60.00 | 64.6 | 64.8 | 65.6 | 66.1 | 67.8 |
| 50.00 | 78.2 | 78.6 | 79.2 | 79.8 | 81.5 |

Table 4.5 shows the median ATAR and the median ATAR for male and female candidates for the years 2018-2022.

Table 4.5 Median ATAR, 2018-2022

| Year | Median ATAR <br> all students | Median ATAR <br> female | Median ATAR <br> male |
| :---: | :---: | :---: | :---: |
| 2018 | 69.65 | 71.10 | 67.80 |
| 2019 | 69.75 | 71.10 | 68.05 |
| 2020 | 70.15 | 71.30 | 68.70 |
| 2021 | 70.40 | 71.80 | 68.70 |
| 2022 | 71.25 | 72.45 | 69.85 |

In 2022, 48 students received the top ATAR of 99.95. They comprised 29 males and 19 females from a mix of government and independent schools.

### 4.8 ATAR percentiles and relationship between ATAR and aggregates Tables A8, A9

Table A8 in the Appendix shows the ATAR corresponding to selected ATAR-eligible percentiles. For example, 10 per cent of the ATAR cohort in 2022 received an ATAR of 94.30 or above.

Each ATAR corresponds to a range of aggregates and the figures provided in Table A9 in the Appendix show the minimum aggregate corresponding to selected ATARs.

### 4.9 Relationship between subject choice, band and ATAR

There is considerable interest in the relationship between student's selection of HSC courses and ATAR. As mentioned in 3.1, students present an extraordinarily large range of HSC course combinations, and so it is not possible to describe a typical HSC result associated with a particular ATAR. However, some insight can be gained from Table 4.6 which lists the 10 most common HSC course/band combinations for students in selected ATAR ranges. The patterns illustrate that the most able students generally choose the more demanding courses in subjects where choice is available, and that the reported HSC performance bands, at least for the most common courses, are reasonably consistent at most points in the ATAR spectrum.

Table 4.6 The 10 most common HSC courses and results achieved by students at selected ATAR ranges, 2022

| ATAR range | HSC Course | HSC Band | Percentage of students in this ATAR range with this result contributing to their ATAR |
| :---: | :---: | :---: | :---: |
| 99.00-99.95 | Mathematics Extension 1 | E4 | 86\% |
|  | English Advanced | 6 | 82\% |
|  | Mathematics Extension 2 | E4 | 64\% |
|  | Chemistry | 6 | 56\% |
|  | Physics | 6 | 41\% |
|  | Mathematics Advanced | 6 | 24\% |
|  | Economics | 6 | 21\% |
|  | Biology | 6 | 17\% |
|  | English Extension 1 | E4 | 15\% |
|  | Modern History | 6 | 13\% |
| 90.00-90.95 | English Advanced | 5 | 67\% |
|  | Mathematics Advanced | 5 | 27\% |
|  | Biology | 5 | 27\% |
|  | Mathematics Extension 1 | E3 | 23\% |
|  | Chemistry | 4 | 19\% |
|  | Modern History | 5 | 16\% |
|  | English Standard | 5 | 16\% |
|  | Mathematics Advanced | 6 | 16\% |
|  | PDH\&PE | 5 | 15\% |
|  | Mathematics Standard 2 | 5 | 15\% |
| 70.00-70.95 | English Standard | 4 | 44\% |
|  | English Advanced | 4 | 29\% |
|  | Mathematics Standard 2 | 4 | 25\% |
|  | Business Studies | 4 | 23\% |
|  | Mathematics Standard 2 | 5 | 22\% |
|  | PDH\&PE | 4 | 19\% |
|  | Biology | 4 | 18\% |
|  | Biology | 3 | 15\% |
|  | Modern History | 4 | 14\% |
|  | Studies of Regligion I | 4 | 13\% |
| 50.00-50.95 | English Standard | 3 | 52\% |
|  | Mathematics Standard 2 | 3 | 47\% |
|  | PDH\&PE | 3 | 26\% |
|  | Business Studies | 3 | 26\% |
|  | English Standard | 4 | 24\% |
|  | Community \& Family Studies | 4 | 20\% |
|  | Biology | 3 | 16\% |
|  | Biology | 2 | 15\% |
|  | Modern History | 3 | 12\% |
|  | Legal Studies | 3 | 12\% |

### 4.10 Gender differences

As in previous years, female students outperformed male students in the majority of courses and had a higher median ATAR. The percentages of students receiving ATARs on or above specified values who were female are given in Table 4.7.

Table 4.7 Percentage of students receiving ATARs on or above on or above specified values who were female, 2018-2022

| ATAR | \% female 2018 | \% female 2019 | \% female 2020 | \% female 2021 | \% female 2022 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 99.00 | 45.9 | 47.2 | 45.1 | 47.3 | 41.8 |
| 98.00 | 51.0 | 52.6 | 47.9 | 49.5 | 46.2 |
| 95.00 | 55.4 | 55.8 | 51.7 | 52.8 | 51.2 |
| 90.00 | 58.0 | 57.7 | 54.3 | 55.5 | 54.8 |
| 80.00 | 58.5 | 56.9 | 56.1 | 57.1 | 56.2 |
| 70.00 | 53.2 | 57.2 | 56.4 | 56.8 | 56.1 |
| 60.00 | 53.5 | 53.0 | 56.1 | 56.1 | 55.4 |
| 50.00 | 48.0 | 54.8 | 55.4 | 55.4 | 54.7 |
| 40.00 | 50.4 | 48.4 | 55.0 | 54.8 | 54.3 |
| 30.00 | 47.6 | 46.5 | 54.5 | 54.5 | 54.2 |
| Total cohort | 53.7 | 54.1 | 54.4 | 54.3 | 54.0 |

In 2022, the HSC-aged population of NSW was 97,098, of whom 47,023 (48.4\%) were female. If there were no gender-based difference in HSC participation and performance, one would therefore expect 48.4\% of the candidates with a particular aggregate score to be female. The solid line in Figure 4.1 shows the number of female students on each aggregate score (smoothed by taking a moving average), while the dotted line shows the expected number ( $48.4 \%$ of the total number of students with that aggregate score.)

It is evident from Figure 4.1 that the number of female students on a particular aggregate score is in very close agreement with this expected number for aggregate scores above 441 (ATAR 98.45) and below 95 (ATAR 34.90), indicating that participation and performance at the top and bottom of the aggregate range is not significantly influenced by gender. However, there are considerably more females than would be expected given their proportion in the HSC-aged population on almost every aggregate score between 95 and 441, reflecting higher retention rates and better performance for females in this range.

Figure 4.1 Number of females on each aggregate score compared with the expected number if there were no gender-based differences in participation or performance

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### 4.11 University offers

UAC makes several rounds of offers for semester 1 courses, starting from August and going through to February. The majority of offers to Year 12 students are made in December and January.

Of the 54,308 students who received an ATAR in 2022, 75.3 per cent applied through UAC for a university course. The table below shows that the higher the ATAR, the greater the percentage of students applying for university through UAC.

Table 4.8 Applicants for university places by ATAR - domestic and international

|  | Applicants |  |  |
| :---: | :---: | :---: | :---: |
| ATAR band | Total number of students | Number | Percentage $^{1}$ |
| $90.00-99.95$ | 9,592 | 9,362 | 97.6 |
| $80.00-89.95$ | 9,524 | 8,831 | 92.7 |
| $70.00-79.95$ | 9,200 | 7,860 | 85.4 |
| $60.00-69.95$ | 8,515 | 6,285 | 73.8 |
| $50.00-59.95$ | 7,453 | 4,517 | 60.6 |
| Below 50.00 | 10,024 | 4,063 | 40.5 |
| Total | 54,308 | 40,918 | 75.3 |

${ }^{1}$ These are percentages of the total number of students in the given ATAR band.

Of those domestic students applying through UAC for undergraduate courses in semester 1, 93.6 per cent were made at least one offer of a place. Of these applicants receiving at least one offer, 67.2 per cent had an ATAR of 70 and above, and 92.6 per cent had an ATAR of 50 and above.

It is important to note that not all applicants are made an offer solely on the basis of their ATAR. For some courses, alternative criteria are used and ATARs are not considered at all, and for other courses ATARs are supplemented by additional criteria.


## 5 Trends and other issues

### 5.1 Variation in patterns of HSC marks - Tables A4, A5

As noted in Chapter 3, the scaling process uses the raw marks, not the HSC marks that NESA uses to report student achievement. Further, the raw marks for each course undergo an initial standardisation to a common mean and standard deviation before the scaling algorithm is implemented. The HSC marks that NESA uses to report student achievement are not used in the scaling process so any variation in the distribution of these marks across courses does not impact on the ATAR calculation.

A common question is whether changes in the pattern of HSC marks from one year to the next affects the pattern of scaled marks and hence the pattern of ATARs. For the reason given above, the answer is no. It is to be expected that the patterns of HSC marks may change from year to year, reflecting differences in student achievement against the published standards in individual courses. In contrast, one would expect to see differences in the patterns of scaled marks only if the overall academic quality of a course candidature changed.

Tables A4 and A5 in the Appendix show the distributions of HSC and scaled marks, respectively, in 2022 and 2021. The marks are on a per-unit basis ( $0-50$ ) and courses with less than 40 students in either year are not included. Table A4 shows the percentages of each course candidature with an HSC mark less than $45,40,35,30$ and 25 for 2022 and 2021. Table A5 provides similar information for scaled marks. The data show that while the distributions of HSC marks have changed for some courses, the distributions of scaled marks were generally the same.

Biology is an example of a course where the candidature was comparable between 2021 and 2022 but there is a change in the distributions of HSC marks (Table 5.1). The distributions of scaled marks in the two years were, however, similar.

Table 5.1 Distributions of HSC and scaled marks for Biololgy, 2021 and 2022, on a one-unit basis

|  |  | Percentage of students with mark less than: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mark | Year | Number | 45 | 40 | 35 | 30 | 25 |
| HSC mark | 2022 | 18,891 | 93.6 | 73.2 | 46.7 | 20.3 | 4.2 |
|  | 2021 | 18,708 | 92.8 | 68.7 | 33.9 | 8.8 | 2.1 |
|  | 2022 | 18,891 | 99.0 | 91.6 | 77.8 | 61.6 | 45.6 |
|  | 2021 | 18,708 | 98.7 | 91.3 | 78.5 | 62.8 | 46.2 |

Taken together, the data indicate that the 2022 candidature in Biology performed less well than the corresponding cohort in 2021 in terms of the performance standards for Biology. However, their overall performance as judged by their scaled marks is almost the same.

### 5.2 Distributions of English and mathematics marks: 2019-2022

Because all students study English, and most study mathematics, comparative data is shown for English and mathematics courses for the four years, 2019 to 2022. Table 5.4 shows the distributions of HSC marks and Table 5.5 shows the distributions of scaled marks.

The number of students completing English Extension 1 and English Extension 2 were similar between 2021 and 2022. English Studies Examination was offered as a Category B for the first time in 2019 and could be used to meet ATAR eligibility requirements, and 1,273 students completed this course in 2022, down from 1,357 in 2021. English Standard had fewer students in 2022 than in 2021 whereas English Advanced had slightly more. The number of English EAL/D students continued to decrease, down from 1,879 in 2021 to 1,487 in 2022.

In 2022, 12.4 per cent of ATAR eligible students did not complete a mathematics course and 19.2 per cent of those awarded an HSC did not include a Board developed mathematics course in their Year 12 HSC courses.

When considering the English marks, recall English Studies Examination, English Standard and English Advanced are scaled as a single group. In 2022, English Studies Examination, English Standard and English Advanced all shared common questions worth 20 marks. In addition, English Studies Examination shared two additional questions worth 9 marks with English Standard, and English Advanced shared three additional questions worth 11 marks with English Standard. These shared elements provide sufficient information for NESA to calibrate the marks on the remaining 59\% of the English Studies Examination paper, 69\% of the English Advanced Examination papers and 60\% of the English Standard Examination papers so that they are all on the same calibrated raw mark scale. NESA then moderates school assessments for English Studies Examination, English Standard and English Advanced using these calibrated raw marks, and the usual NESA Standard Setting process is applied to transform these calibrated marks into HSC marks aligned to the common standard shared by all three courses, and these aligned marks are reported to students.

It is the calibrated raw HSC marks for English Standard Examination, English Standard and English Advanced which are used for scaling. These marks are all combined and scaled as a single course. Thus, a given calibrated raw HSC marks yields the same scaled mark for English Studies Examination, English Standard and English Advanced students.

By contrast, the courses Mathematics Standard 1, Mathematics Standard 2 and Mathematics Advanced are distinct 2-unit courses. In 2022, the Mathematics Standard 2 paper shared 8 items worth 21 marks with the Mathematics Standard 1 paper and an additional 7 items worth 20 marks with the Mathematics Advanced paper. There were no items common to all three papers. However NESA does not use this information to calibrate the marks on the remaining $74 \%$ of the Mathematics Standard 1 paper, the remaining $59 \%$ of the Mathematics Standard 2 paper or the remaining $80 \%$ of the Mathematics Advanced paper. Consequently, the total raw examination marks used in scaling obtained by Mathematics Standard 1 students are on a different scale to those obtained by Mathematics Standard 2 paper, and these two scales in turn are different to the raw mark scale for Mathematics Advanced.

For these reasons, Mathematics Standard 1, Mathematics Standard 2 and Mathematics Advanced are scaled as separate courses. As mentioned in 3.2.3, NESA has provided information derived from these common items which could form the basis of a process to align the raw marks in these three courses. While studies are being undertaken to determine whether such a process should be adopted at some point in the future, no change is currently anticipated.

The performance band information for 2 unit only students on the Mathematics Advanced course, corresponding to Table A2, is given in Table 5.2, and the information captured in Table A3 is provided in Table 5.3 for this group of candidates.

Table 5.2 Distributions of HSC marks for Mathematics Advanced 2 unit only candidates, 2022

|  |  | Percentage of students in Performance Band |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Number | Median HSC mark | Median band | 6 | 5 | 4 | 3 | 2 |
| Mathematics Advanced - 2 unit only | 11,588 | 75 | 4 | 13 | 23 | 32 | 24 | 6 |

Table 5.3 Descriptive statistics for of HSC and scaled marks for mathematics 2 unit only candidates, 2021

| Course | Number | Type of mark | Mean | SD | Max. mark | $\mathrm{P}_{99}$ | $\mathrm{P}_{90}$ | $\mathrm{P}_{75}$ | $\mathrm{P}_{50}$ | $\mathrm{P}_{25}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mathematics Advanced - 2 unit only | 11,588 | HSC | 37.7 | 5.9 | 50.0 | 49.0 | 45.5 | 42.0 | 37.5 | 33.5 |
|  |  | Scaled | 29.1 | 9.2 | 50.0 | 47.3 | 41.2 | 35.8 | 29.4 | 22.5 |

Table 5.4 Distributions of HSC marks for English and mathematics courses, 2019-2022

|  | Year | Enrolment | Percentage of students with HSC mark less than: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 45 | 40 | 35 | 30 | 25 |
| English Studies Examination | 2022 | 1,273 | 100.0 | 99.6 | 92.5 | 65.4 | 11.0 |
|  | 2021 | 1,357 | 100.0 | 99.0 | 91.7 | 55.8 | 16.1 |
|  | 2020 | 1,274 | 100.0 | 100.0 | 97.9 | 68.8 | 22.8 |
|  | 2019 | 993 | 100.0 | 99.9 | 96.2 | 64.5 | 23.2 |
| English Standard | 2022 | 30,643 | 99.4 | 84.5 | 44.3 | 12.0 | 1.3 |
|  | 2021 | 31,341 | 99.4 | 83.4 | 42.2 | 9.5 | 1.6 |
|  | 2020 | 30,914 | 99.5 | 88.4 | 42.4 | 10.8 | 0.5 |
|  | 2019 | 30,228 | 99.3 | 88.2 | 47.9 | 12.3 | 1.4 |
| English Advanced | 2022 | 24,661 | 85.5 | 32.8 | 6.8 | 0.9 | 0.0 |
|  | 2021 | 24,409 | 83.7 | 31.2 | 6.1 | 0.7 | 0.1 |
|  | 2020 | 24,773 | 85.8 | 36.6 | 5.2 | 0.6 | 0.0 |
|  | 2019 | 25,251 | 86.5 | 38.1 | 8.1 | 1.0 | 0.1 |
| English Extension 1 | 2022 | 3,427 | 60.4 | 25.5 | 7.4 | 1.6 | 0.3 |
|  | 2021 | 3,415 | 58.9 | 20.8 | 6.1 | 1.7 | 0.4 |
|  | 2020 | 3,551 | 61.2 | 24.0 | 7.3 | 2.2 | 0.7 |
|  | 2019 | 3,490 | 65.8 | 24.6 | 5.8 | 1.2 | 0.2 |
| English Extension 2 | 2022 | 1,242 | 70.5 | 39.9 | 15.0 | 4.5 | 1.0 |
|  | 2021 | 1,308 | 74.8 | 40.7 | 15.8 | 4.0 | 0.9 |
|  | 2020 | 1,380 | 74.1 | 41.4 | 17.5 | 5.1 | 0.7 |
|  | 2019 | 1,326 | 73.8 | 48.0 | 19.8 | 3.3 | 0.4 |
| English EAL/D | 2022 | 1,487 | 96.4 | 81.2 | 53.9 | 26.2 | 8.7 |
|  | 2021 | 1,879 | 97.6 | 76.6 | 41.6 | 13.8 | 3.3 |
|  | 2020 | 2,022 | 96.6 | 73.9 | 42.8 | 15.5 | 4.5 |
|  | 2019 | 2,138 | 96.1 | 76.3 | 41.2 | 13.8 | 3.6 |
| Mathematics Standard 1 Examination | 2022 | 1,410 | 96.1 | 73.5 | 35.1 | 12.2 | 2.4 |
|  | 2021 | 1,461 | 95.8 | 80.7 | 49.1 | 16.6 | 3.8 |
|  | 2020 | 1,340 | 97.4 | 83.7 | 45.1 | 18.0 | 4.9 |
|  | 2019 | 1,139 | 96.9 | 82.4 | 43.2 | 15.6 | 2.8 |
| Mathematics Standard 2 | 2022 | 29,874 | 92.6 | 70.9 | 45.9 | 18.2 | 3.5 |
|  | 2021 | 30,035 | 94.4 | 75.2 | 48.7 | 21.4 | 6.2 |
|  | 2020 | 30,026 | 94.6 | 75.3 | 49.6 | 24.5 | 7.1 |
|  | 2019 | 29,656 | 94.8 | 75.7 | 43.3 | 16.4 | 2.9 |
| Mathematics Advanced (2020-2022) <br> Mathematics (2019) | 2022 | 16,865 | 77.4 | 51.0 | 23.6 | 5.5 | 0.9 |
|  | 2021 | 16,769 | 76.8 | 49.8 | 21.2 | 6.2 | 1.9 |
|  | 2020 | 16,771 | 76.9 | 47.4 | 19.0 | 4.2 | 1.5 |
|  | 2019 | 17,311 | 76.4 | 50.7 | 21.5 | 7.6 | 2.6 |
| Mathematics Extension 1 | 2022 | 8,679 | 65.2 | 44.1 | 26.4 | 13.0 | 6.0 |
|  | 2021 | 8,547 | 62.7 | 42.0 | 25.7 | 13.0 | 5.8 |
|  | 2020 | 8,804 | 62.1 | 42.0 | 25.5 | 12.4 | 5.5 |
|  | 2019 | 8,830 | 60.9 | 36.6 | 19.7 | 9.6 | 4.4 |
| Mathematics Extension 2 | 2022 | 3,271 | 60.4 | 32.7 | 14.9 | 8.1 | 3.9 |
|  | 2021 | 3,193 | 57.2 | 30.0 | 13.4 | 4.7 | 1.4 |
|  | 2020 | 3,372 | 63.6 | 34.0 | 16.0 | 7.0 | 2.8 |
|  | 2019 | 3,134 | 64.2 | 32.5 | 14.1 | 7.0 | 3.0 |

Table 5.5 Distributions of scaled marks for English and mathematics courses, 2019-2022

|  | Year | Enrolment | Percentage of students with scaled mark less than: |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 45 | 40 | 35 | 30 | 25 | 20 |
| English Studies Examination | 2022 | 1,273 | 100.0 | 100.0 | 99.8 | 99.6 | 99.1 | 94.5 |
|  | 2021 | 1,357 | 100.0 | 100.0 | 99.9 | 99.4 | 98.0 | 94.0 |
|  | 2020 | 1,274 | 100.0 | 100.0 | 100.0 | 100.0 | 99.8 | 98.7 |
|  | 2019 | 993 | 100.0 | 100.0 | 100.0 | 99.9 | 99.1 | 96.2 |
| English Standard | 2022 | 30,643 | 100.0 | 99.1 | 95.7 | 87.0 | 72.3 | 51.3 |
|  | 2021 | 31,341 | 99.9 | 99.3 | 95.7 | 87.0 | 71.4 | 50.5 |
|  | 2020 | 30,914 | 99.9 | 99.3 | 96.3 | 87.6 | 71.9 | 49.8 |
|  | 2019 | 30,228 | 99.9 | 99.1 | 95.7 | 87.5 | 71.8 | 50.6 |
| English Advanced | 2022 | 24,661 | 97.1 | 81.9 | 58.8 | 36.6 | 19.8 | 9.0 |
|  | 2021 | 24,409 | 96.8 | 81.4 | 58.1 | 36.2 | 19.3 | 8.8 |
|  | 2020 | 24,773 | 97.4 | 82.1 | 58.7 | 34.9 | 17.4 | 7.2 |
|  | 2019 | 25,251 | 97.5 | 83.6 | 60.1 | 37.1 | 19.4 | 9.0 |
| English Extension 1 | 2022 | 3,427 | 93.5 | 67.9 | 37.9 | 16.5 | 6.4 | 2.5 |
|  | 2021 | 3,415 | 93.3 | 66.0 | 34.8 | 14.1 | 5.9 | 2.5 |
|  | 2020 | 3,551 | 94.3 | 68.0 | 35.9 | 14.6 | 5.4 | 2.1 |
|  | 2019 | 3,490 | 93.6 | 68.5 | 37.5 | 15.2 | 5.2 | 1.5 |
| English Extension 2 | 2022 | 1,242 | 91.9 | 69.4 | 42.7 | 18.6 | 7.3 | 2.4 |
|  | 2021 | 1,308 | 92.0 | 66.5 | 36.3 | 15.4 | 5.2 | 1.3 |
|  | 2020 | 1,380 | 91.4 | 68.3 | 37.2 | 16.3 | 5.5 | 1.2 |
|  | 2019 | 1,326 | 89.7 | 66.7 | 42.4 | 18.3 | 5.5 | 1.3 |
| English EAL/D | 2022 | 1,487 | 98.5 | 93.5 | 86.1 | 78.1 | 65.8 | 53.1 |
|  | 2021 | 1,879 | 99.0 | 95.1 | 85.6 | 74.2 | 62.7 | 47.2 |
|  | 2020 | 2,022 | 98.7 | 94.9 | 86.1 | 74.9 | 64.5 | 49.9 |
|  | 2019 | 2,138 | 98.6 | 94.0 | 85.9 | 74.2 | 59.3 | 44.6 |
| Mathematics Standard 1 Examination | 2022 | 1,410 | 100.0 | 100.0 | 100.0 | 95.2 | 87.9 | 76.9 |
|  | 2021 | 1,461 | 100.0 | 100.0 | 100.0 | 95.8 | 88.2 | 77.7 |
|  | 2020 | 1,340 | 100.0 | 100.0 | 100.0 | 96.1 | 88.6 | 76.0 |
|  | 2019 | 1,139 | 100.0 | 100.0 | 100.0 | 96.0 | 89.6 | 80.2 |
| Mathematics Standard 2 | 2022 | 29,874 | 99.9 | 96.4 | 87.0 | 74.3 | 60.2 | 44.9 |
|  | 2021 | 30,035 | 99.9 | 96.4 | 87.5 | 75.2 | 61.0 | 44.5 |
|  | 2020 | 30,026 | 100.0 | 97.5 | 88.5 | 74.5 | 58.6 | 42.5 |
|  | 2019 | 29,656 | 100.0 | 97.2 | 88.1 | 75.4 | 60.8 | 45.1 |
| Mathematics Advanced (2020-2022) <br> Mathematics (2019) | 2022 | 16,865 | 93.7 | 77.8 | 59.1 | 40.6 | 24.9 | 13.1 |
|  | 2021 | 16,769 | 95.1 | 79.6 | 60.0 | 40.9 | 24.8 | 13.2 |
|  | 2020 | 16,771 | 94.6 | 78.5 | 59.4 | 42.0 | 26.4 | 14.2 |
|  | 2019 | 17,311 | 95.9 | 81.3 | 61.3 | 40.7 | 24.3 | 13.5 |
| Mathematics Extension 1 | 2022 | 8,679 | 69.9 | 38.3 | 20.3 | 11.4 | 6.3 | 2.9 |
|  | 2021 | 8,547 | 71.3 | 39.5 | 21.2 | 11.4 | 6.2 | 2.5 |
|  | 2020 | 8,804 | 74.9 | 43.3 | 21.9 | 11.4 | 5.6 | 2.3 |
|  | 2019 | 8,830 | 82.0 | 45.5 | 21.7 | 10.2 | 4.8 | 1.9 |
| Mathematics Extension 2 | 2022 | 3,271 | 42.7 | 13.4 | 5.3 | 2.8 | 1.3 | 0.7 |
|  | 2021 | 3,193 | 45.0 | 15.2 | 6.0 | 2.5 | 0.8 | 0.4 |
|  | 2020 | 3,372 | 48.1 | 15.5 | 5.8 | 2.5 | 1.1 | 0.7 |
|  | 2019 | 3,134 | 64.5 | 18.6 | 6.3 | 2.4 | 0.8 | 0.1 |

### 5.3 Courses that contribute to the ATAR - Table A6

If students complete only 10 units all courses must be counted in the calculation of the ATAR, whereas if students complete more than 10 units at least one unit will be omitted. In 2022 34,702 students out of the 54,308 ATAR eligible students (63.9\%) presented exactly 10 units.

Table A6 in the Appendix provides some information about students who completed more than 10 units. Data are not provided for courses with less than 10 students.

For each course:
■ The first column shows the total number of students who did the course in any year and received an ATAR in 2022.

- The second column shows the number of these students who completed more than 10 units.

■ The third column expresses this number as a percentage.
■ The fourth column gives the percentage of these students who counted all units of that course towards their ATAR. The percentage is based on the number of students in the course who had completed more than 10 units

- The final column shows the maximum ATAR of any student doing the course in any year and including all units of that course in the ATAR calculation.

Of the 108 courses listed in Table A6, 75 have 70 per cent or more of their students counting the course. The data also show that, while there are differences in the percentages of students who count a particular course towards their ATARs, there is no evidence of systematic differences across Key Learning Areas.


## 6 Frequently asked questions

Most of the enquiries from students received by the ATAR Enquiry Centre at UAC concerned the relationship between their HSC marks and their ATARs, and the reason why one course contributed to their ATAR and not another. These two major enquiries will be discussed below, followed by a summary of some of the other frequently asked questions.

### 6.1 Why is my ATAR low in comparison to my HSC marks?

The ATAR is a rank, not a mark, and so there is no reason why the scores should be close. From Table A2 we can see that the median HSC mark for most 2 -unit courses is between 70 and 80 . The median ATAR is 71.25 which is lower than the median score for almost all courses. So for students in the middle of the candidature, the ATAR will typically be lower than their average HSC mark.

There is, however, no simple rule to convert HSC marks to ATARs. Courses are unlikely to have the same scaled means from year to year and the pattern of HSC marks varies across courses so that the same HSC mark does not necessarily indicate the same position across courses. The following examples illustrate the complexity of the relationship between HSC marks and ATARs.

## Example 1

Consider the following two students, Liam and Kellie, whose HSC marks are shown in Table 6.1. These students are middle students (the 50th percentile) in all of their courses. Their average HSC marks per unit are exactly the same, at 39.1 , but their ATARs are quite different, 60.00 and 82.00 respectively.


Table 6.1 Two examples of student achievement to show the effect of different scaled means

| Kellie <br> ATAR: 82.00 <br> Course |  |  |
| :--- | :---: | :---: |
| HSC mark <br> per course | HSC mark <br> per unit |  |
| Chemistry | 74 | 37.0 |
| Economics | 79 | 39.5 |
| English Advanced | 83 | 41.5 |
| Mathematics Advanced | 79 | 39.5 |
| Physics | 76 | 38.0 |

Both Liam and Kellie are at the 50th percentile in all of their courses, so the reason for the difference in their ATARs is the difference in the strength of the competition in the courses they have chosen. The average scaled mean for Liam's courses was 21.7, whereas the average scaled mean for Kellie's courses was 31.6. Since the mean scaled mark and the median scaled mark are generally very similar, Kellie's aggregate is around 322 , while Liam's aggregate is around 210 , reflecting the difference in the academic achievement of the students they have competed against. Consequently, Kellie's ATAR is significantly higher than Liam's ATAR.

## Example 2

Consider the following two students, James and Amy, whose HSC marks are shown in Table 6.2. Their average HSC marks per unit are identical at 38.2, but their ATARs are quite different, 68.20 and 76.30 respectively.

Table 6.2 Two examples of student achievement to show the effect of different scaled means

| James <br> ATAR: 68.20 |  |  |
| :--- | :---: | :---: |
| Course | HSC mark <br> per course | HSC mark <br> per unit |
| English Standard | 79 | 39.5 |
| Info Processes \& Tech | 79 | 39.5 |
| Mathematics Standard 2 | 71 | 35.5 |
| PDH\&PE | 75 | 37.5 |
| Society \& Culture | 78 | 39.0 |


| Amy <br> ATAR: 76.30 |  |  |
| :--- | :---: | :---: |
| Course | HSC mark <br> per course | HSC mark <br> per unit |
| Biology | 79 | 39.5 |
| Chemistry | 76 | 38.0 |
| English Advanced | 76 | 38.0 |
| Mathematics Advanced | 77 | 38.5 |
| Indonesian Continuers | 74 | 37.0 |

Amy has an ATAR that is almost the same as her average HSC course score (76.4) whereas James's ATAR is much lower than his average HSC course score (76.4). If we look at Table A3, the average of the scaled means of the courses taken by James is 22.1, whereas for the average scaled mean for the courses taken by Amy is 30.7.

## Example 3

Consider the following two students who completed the same courses. The first student, Fred, receives an HSC mark of 35.0 per unit in each course, while the second student, Laura, receives an HSC mark of 40.0 per unit in each course (Table 6.3).

Table 6.3 Two examples of student achievement: Fred and Laura

| Fred <br> ATAR: 61.00 |  | Laura <br> ATAR: 80.00 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| HSC mark per unit | Percentile | Course | HSC mark per unit | Percentile |
| 35.0 | 49 | Biology | 40.0 | 75 |
| 35.0 | 38 | Business Studies | 40.0 | 68 |
| 35.0 | 8 | English Advanced | 40.0 | 37 |
| 35.0 | 26 | Mathematics Advanced | 40.0 | 54 |
| 35.0 | 35 | Modern History | 40.0 | 69 |
| 35.0 | 9 | Visual Arts | 40.0 | 39 |

Their HSC marks per unit in each course differ by only 5 , yet their ATARs differ by 19.00. Laura's ATAR is the same to her HSC course marks (80 per course), while Fred's ATAR is much lower than his HSC course marks (70 per course).

The reason for the large difference in the ATARs can be found in the differences in the percentiles shown in Table 6.3. The percentiles are much higher for Laura than for Fred. Given these large differences, it is not surprising that their ATARs are very different.

The courses and HSC marks shown for Fred and Laura are the same as in 2021. While their HSC marks are the same, the percentiles (their positions in their courses) have changed because of the changes in the distributions of HSC marks, so their ATARs are different.

Table 6.4 ATARs for Fred and Laura: 2010-2022

| Year | Fred | Laura |
| :--- | :--- | :--- |
| 2010 | 57.05 | 80.15 |
| 2011 | 58.20 | 79.80 |
| 2012 | 57.45 | 79.65 |
| 2013 | 57.55 | 80.00 |
| 2014 | 55.95 | 79.45 |
| 2015 | 57.50 | 79.65 |
| 2016 | 57.10 | 78.50 |
| 2017 | 57.55 | 78.05 |
| 2018 | 57.90 | 78.15 |
| 2019 | 58.70 | 78.70 |
| 2020 | 58.00 | 78.00 |
| 2021 | 58.00 | 78.00 |
| 2022 | 61.00 | 80.00 |

The ATAR is about position, whereas HSC marks indicate levels of achievement in individual courses.

### 6.2 Why does this course contribute to my ATAR when another course where I received a higher mark does not count?

As in previous years, this question arose after the results were released because each student is advised which units contribute to their ATAR. The question is not always easy to answer, especially as students are only aware of their HSC marks, which provide little information as to their rankings in their courses.

The question can often be answered by reference to data on the distributions of HSC and scaled marks in Table A3 in the Appendix. Some examples are presented to illustrate the principles involved.

The examples illustrate the general principle that a student's position in their course and the scaled means and standard deviations of their courses are all important in determining which of their courses contribute towards their ATAR.

Also, it must be remembered that a given HSC mark usually corresponds to a range of raw and scaled marks.

## Example 1 - Scaled means

The first example (Table 6.5) shows a set of HSC and scaled marks corresponding to results at the 90th percentile of the various course distributions.

Table 6.5 HSC and scaled marks - example 1

|  |  | $P_{90}$ |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Course | Number | Scaled mean | Scaled SD | HSC mark per unit | Scaled mark |
| Ancient History | 6,336 | 23.0 | 11.0 | 44.5 | 37.8 |
| Chemistry | 9,920 | 31.7 | 9.9 | 44.5 | 43.5 |
| Modern History | 10,153 | 25.4 | 10.9 | 44.5 | 39.5 |
| Society \& Culture | 4,614 | 23.3 | 10.8 | 45.0 | 38.1 |
| Study of Religion II | 6,091 | 27.1 | 10.3 | 45.0 | 40.2 |

These HSC marks are similar and each is at the 90th percentile of a large course with comparable standard deviations. Since the position within the course candidature is the same for each course the scaled mark will depend on the academic quality of the candidature of the course concerned. The highest scaled mark is for Chemistry, which has the highest scaled mean. The lowest scaled mark is for Ancient History, which has the lowest scaled mean.

## Example 2 - Position

Consider students with HSC marks of 47.5 per unit in Business Studies and Chinese in Context. The student in Business Studies is at the 99th percentile and gains a scaled mark of 44.7, whereas the student in Chinese in Context is at the 90th percentile and gets a scaled mark of 41.7. Therefore, even though the scaled mean for Chinese in Context (30.6) is higher than the scaled mean for Business Studies (23.6), the difference in position compensates for this and the Business Studies student gets the higher scaled mark.

Table 6.6 HSC and scaled marks - example 2

|  | Scaled mean | Scaled SD | Percentile | HSC mark per unit | Scaled mark |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Business Studies | 23.6 | 10.8 | $P_{99}$ | 47.5 | 44.7 |
| Chinese in Context | 30.6 | 10.3 | $P_{90}$ | 47.5 | 41.7 |

## Example 3 - Standard deviations

In some situations, particularly in courses with smaller candidatures, the difference in the distribution spread is also a factor in deciding which course contributes towards the ATAR.

Table 6.7 HSC and scaled marks - example 3

|  |  | $P_{90}$ |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Course0 | Scaled mean | Scaled SD | HSC mark per unit | Scaled mark |
| Arabic Extension | 24.4 | 6.4 | 46.0 | 32.5 |
| Textiles and Design | 23.0 | 11.2 | 46.0 | 38.0 |

Consider students at the 90th percentile of Arabic Extension with a HSC mark of 46.0 per unit and scaled mark of 32.5 per unit and at the 90th percentile of Textiles and Design with a HSC mark of 46.0 and scaled mark of 38.0. Arabic Extension has a scaled mean of 24.4 whereas Textiles and Design has a scaled mean of 23.0.

The course with the lower scaled mean (Textiles and Design) has the higher scaled mark corresponding to the HSC mark of 46.0 even though the position is the same in both courses. The reason the scaled marks differ is the spread in the distribution as measured by the standard deviation (SD). Textiles and Design has a SD of 11.2 but Arabic Extension has lower SD at 6.4. Textiles and Design has a candidature with more varied academic ability than Arabic Extension.

## Example 4 - Raw versus HSC marks

As noted in section 4.6, there is not necessarily a unique scaled mark for each HSC mark. From Table A3, by focusing on the maximum mark and the 99th percentile, we see that candidates receiving the top HSC mark of 49.0 in French Continuers received scaled marks from 50.0 to 49.3. The top HSC mark in a course does not necessarily reflect the top raw mark in a course and so a candidate with the top HSC mark in the course may not receive the top scaled mark.

The pattern of several scaled marks corresponding to a given HSC mark can occur across the distribution, not just at the top of the range.

### 6.3 Other frequently asked questions

## Does the school I attend matter?

No. The school attended does not feature in the ATAR calculation. The ATAR calculation is based only on marks provided by NESA; no other information is used.

## Does my postcode matter?

No.

## Are certain courses always 'scaled down'?

No. Scaling is carried out afresh each year: if the quality of the candidature changes, the scaled mean will also change.

## Is it true that if I study this course I can't get a high ATAR?

No. As Table A1 in the Appendix shows, there are students in every course who achieve high ATARs.

## What impact did the variation in patterns of HSC marks have on the ATAR calculations?

None. It is the raw HSC marks rather than the aligned HSC marks that are scaled. The fact that the percentage of students who are placed in Performance Band 6 differs across courses has no effect on the calculation of the ATAR.

## Why can't I use my HSC marks to check the calculation of my ATAR?

There are two reasons. The first is the ATAR is a rank that indicates your position in relation to other students, it is not an average mark. Secondly, raw marks are used in the calculation of the ATAR, not the aligned HSC marks.

## Can I find out what my scaled marks are?

No. Scaled marks are not reported to students. They are determined during an interim phase in the ATAR calculation.

## I have similar HSC marks to my friend, but we don't have similar ATARs. Why not?

Your ATARs would be similar if your courses were the same.

## Which courses should I study?

Do not choose courses on the basis of what you believe are the likely effects of scaling. Choice of which courses to study should be determined only by your interests, your demonstrated abilities and the value of courses for your future career plans. The scaling process is designed to allow students to choose according to these principles and not, as far as university selection is concerned, be disadvantaged by their choice. It treats all students on their merits.

## Do I get a better ATAR if I study more units?

This is a common question. While the data show that students who study more units tend to gain higher ATARs, determining causality is difficult. The relationship between the number of units studied and ATAR might result from personal attributes including interest, motivation, effort and time management. You cannot assume that simply by studying more units your ATAR will be increased.

## What happens if I repeat a course?

If a course is repeated only the last satisfactory attempt is used towards the calculation of the ATAR. Your aggregate will be re-calculated using your new mark. Your aggregate may increase, remain the same or decrease; it depends on your new mark. Since you are being compared with a different cohort your ATAR may increase, remain the same or decrease, even if your aggregate remains the same.

## What happens if I accumulate the HSC?

Students who accumulate courses towards their HSC have their scaled marks calculated the year they complete the courses.

## What happens if I already have an ATAR and add a new ATAR course the following year?

Your aggregate will be re-calculated using your new course and your previous courses. Provided all your previous courses were taken within the last 5 years, your aggregate may increase or stay the same but it will not go down. However, since you are being compared with a different cohort your ATAR may increase, remain the same or decrease.

Any courses taken more than 5 years ago will be ineligible for inclusion in your new aggregate.

## If I'm eligible to get selection rank adjustments, does my ATAR change?

No. Selection rank adjustments do not change your ATAR. They change your selection rank for a particular preference or course.

## If selection rank adjustments don't increase my ATAR, then how do they work?

Universities allocate selection rank adjustments for different reasons. Examples include students with a strong performance in specific HSC courses, students who live in or attend school in an area defined by the university and students who have applied for consideration through Educational Access Schemes.

As the selection rank adjustments schemes for each university, and often each course at the same university, are different then your selection rank can be different for each course you list in your course preferences. For some Year 12 applicants, their selection rank for each preference is their ATAR. However, if a university allocates adjustments to you for a particular course then your selection rank for that preference is your ATAR plus adjustments.


## 7 Appendix

The following courses are not included in Tables A2 to A5 in the Appendix as they had less than 10 students in 2022:

- Classical Greek Continuers
- Classical Greek Extension
- Classical Hebrew Extension
- Croatian Continuers
- Dutch Continuers
- Indonesian \& Literature

Some other courses do not appear in all tables if they have less than the minimum number of candidates required for a particular table.

Table A1 Course enrolments, gender, ATAR eligibility and maximum ATAR by course
Excludes courses with less than 10 students.
Table A2 Distributions of HSC marks by course
Excludes courses with less than 10 students.
Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course Excludes courses with less than 10 students completing the course in the current year, or if the students completing the course in the current year are undertaking less than 25 other ATAR courses in the same year, and no percentile data are given for courses with less than 40 students.
Table A4 Distributions of HSC marks by course: 2021 and 2022 Excludes courses with less than 40 students in either year.
Table A5 Distributions of scaled marks by course: 2021 and 2022 Excludes courses with less than 40 students in either year.
Table A6 Courses that contribute to the ATAR (more than 10 units) Excludes courses with less than 10 students.
Table A7 ATAR distribution
Table A8 ATAR percentiles: 2018-2022
Table A9 Relationship between the ATAR and aggregates: 2018-2022

Table A1 Course enrolments, gender, ATAR eligibility and maximum ATAR by course
Notes: (i) The Number all column includes students who have completed the course in 2022 or in a previous year (and who have done at least one ATAR course in 2022).
(ii) The Number HSC column shows the number of students who completed the course in 2022 or in a previous year and received an HSC award in 2022.
(iii) The Number ATAR column shows the number of students who completed the course in 2022 or in a previous year and who were eligible for an ATAR in 2022.
(iv) The \% Female column shows the percentage of students in the course who were female.
(v) The \% HSC column shows the percentage of students in the course who received an HSC award in 2022.
(vi) The \% ATAR eligible column shows the percentage of students in the course who were eligible for an ATAR in 2022.
(vii) The Maximum ATAR column shows the maximum ATAR achieved by a student doing the course.
(viii) The table excludes courses with less than 10 students.

| Course | Number all | Number HSC | Number ATAR | \% Female | \% HSC | \% ATAR eligible | Maximum ATAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aboriginal Studies | 827 | 709 | 486 | 75.7 | 85.7 | 58.8 | 99.10 |
| Agriculture | 1,510 | 1,402 | 1,099 | 49.0 | 92.8 | 72.8 | 99.95 |
| Ancient History | 6,458 | 6,192 | 5,685 | 55.4 | 95.9 | 88.0 | 99.95 |
| Biology | 19,253 | 18,657 | 18,114 | 64.4 | 96.9 | 94.1 | 99.95 |
| Business Studies | 18,376 | 17,747 | 16,604 | 46.0 | 96.6 | 90.4 | 99.90 |
| Chemistry | 10,128 | 9,919 | 9,893 | 48.0 | 97.9 | 97.7 | 99.95 |
| Community \& Family Studies | 9,065 | 8,714 | 7,367 | 90.1 | 96.1 | 81.3 | 99.10 |
| Dance | 886 | 832 | 784 | 95.9 | 93.9 | 88.5 | 99.85 |
| Design \& Technology | 3,734 | 3,495 | 3,180 | 43.9 | 93.6 | 85.2 | 99.80 |
| Drama | 3,303 | 3,139 | 2,851 | 67.2 | 95.0 | 86.3 | 99.90 |
| Earth \& Environmental Science | 2,239 | 2,107 | 1,929 | 45.4 | 94.1 | 86.2 | 99.65 |
| Economics | 5,426 | 5,369 | 5,341 | 33.9 | 98.9 | 98.4 | 99.95 |
| Engineering Studies | 2,413 | 2,351 | 2,285 | 11.3 | 97.4 | 94.7 | 99.85 |
| English Studies Exam | 1,314 | 1,112 | 559 | 42.1 | 84.6 | 42.5 | 87.60 |
| English Standard | 31,043 | 30,089 | 27,890 | 50.0 | 96.9 | 89.8 | 99.95 |
| English Advanced | 24,840 | 24,634 | 24,521 | 59.5 | 99.2 | 98.7 | 99.95 |
| English EAL/D | 1,510 | 1,354 | 1,338 | 52.9 | 89.7 | 88.6 | 99.95 |
| English Extension 1 | 3,435 | 3,416 | 3,410 | 71.8 | 99.4 | 99.3 | 99.95 |
| English Extension 2 | 1,243 | 1,233 | 1,228 | 75.6 | 99.2 | 98.8 | 99.95 |
| Food Technology | 3,705 | 3,505 | 2,925 | 70.7 | 94.6 | 78.9 | 99.65 |
| Geography | 4,161 | 4,075 | 3,823 | 46.4 | 97.9 | 91.9 | 99.90 |
| Industrial Technology | 5,815 | 5,523 | 4,050 | 16.9 | 95.0 | 69.6 | 99.30 |
| Information Processes \& Technology | 1,975 | 1,821 | 1,715 | 20.6 | 92.2 | 86.8 | 99.95 |
| Investigating Science | 2,849 | 2,571 | 2,283 | 42.3 | 90.2 | 80.1 | 99.60 |
| Legal Studies | 10,390 | 10,088 | 9,694 | 64.3 | 97.1 | 93.3 | 99.95 |
| Mathematics Standard 1 Exam | 1,442 | 1,337 | 866 | 52.4 | 92.7 | 60.1 | 88.35 |
| Mathematics Standard 2 | 30,266 | 29,456 | 27,589 | 52.6 | 97.3 | 91.2 | 99.80 |
| Mathematics Advanced | 17,673 | 15,844 | 15,827 | 47.9 | 89.7 | 89.6 | 99.95 |
| Mathematics Extension 1 | 9,087 | 8,525 | 8,534 | 40.5 | 93.8 | 93.9 | 99.95 |
| Mathematics Extension 2 | 3,349 | 3,283 | 3,288 | 33.7 | 98.0 | 98.2 | 99.95 |
| Modern History | 10,329 | 10,082 | 9,523 | 48.9 | 97.6 | 92.2 | 99.95 |
| History Extension | 1,540 | 1,537 | 1,535 | 58.9 | 99.8 | 99.7 | 99.95 |
| Music 1 | 4,324 | 4,126 | 3,531 | 48.4 | 95.4 | 81.7 | 99.55 |
| Music 2 | 729 | 682 | 679 | 51.3 | 93.6 | 93.1 | 99.95 |
| Music Extension | 356 | 354 | 354 | 51.4 | 99.4 | 99.4 | 99.95 |
| PDH\&PE | 16,145 | 15,705 | 14,516 | 56.5 | 97.3 | 89.9 | 99.95 |
| Physics | 7,719 | 7,590 | 7,558 | 21.8 | 98.3 | 97.9 | 99.95 |


| Course | Number all | Number HSC | Number ATAR |  | \% HSC | \% ATAR eligible | Maximum ATAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Science Extension | 660 | 659 | 659 | 62.4 | 99.8 | 99.8 | 99.95 |
| Society \& Culture | 4,732 | 4,578 | 4,315 | 81.9 | 96.7 | 91.2 | 99.80 |
| Software Design \& Development | 1,863 | 1,784 | 1,719 | 11.8 | 95.8 | 92.3 | 99.95 |
| Studies of Religion I | 9,102 | 8,348 | 8,125 | 55.5 | 91.7 | 89.3 | 99.95 |
| Studies of Religion II | 6,295 | 5,986 | 5,880 | 63.1 | 95.1 | 93.4 | 99.95 |
| Textiles \& Design | 1,502 | 1,444 | 1,278 | 95.5 | 96.1 | 85.1 | 99.80 |
| Visual Arts | 8,308 | 7,959 | 6,962 | 73.7 | 95.8 | 83.8 | 99.90 |
| Arabic Continuers | 299 | 273 | 248 | 62.2 | 91.3 | 82.9 | 96.75 |
| Arabic Extension | 71 | 69 | 54 | 71.8 | 97.2 | 76.1 | 93.50 |
| Armenian Continuers | 32 | 18 | 17 | 50.0 | 56.3 | 53.1 | 97.30 |
| Chinese Beginners | 60 | 59 | 55 | 68.3 | 98.3 | 91.7 | 98.40 |
| Chinese Continuers | 211 | 204 | 202 | 61.1 | 96.7 | 95.7 | 99.95 |
| Chinese Extension | 61 | 61 | 61 | 60.7 | 100.0 | 100.0 | 99.95 |
| Chinese \& Literature | 331 | 301 | 323 | 50.8 | 90.9 | 97.6 | 99.95 |
| Chinese in Context | 156 | 148 | 150 | 66.0 | 94.9 | 96.2 | 99.70 |
| Classical Greek Continuers | 11 | 10 | 10 | 36.4 | 90.9 | 90.9 | 99.95 |
| Classical Hebrew Continuers | 19 | 19 | 18 | 52.6 | 100.0 | 94.7 | 98.45 |
| Filipino Continuers | 10 | 10 | 10 | 80.0 | 100.0 | 100.0 | 81.35 |
| French Beginners | 332 | 327 | 308 | 78.0 | 98.5 | 92.8 | 99.20 |
| French Continuers | 535 | 507 | 504 | 69.2 | 94.8 | 94.2 | 99.95 |
| French Extension | 99 | 97 | 97 | 67.7 | 98.0 | 98.0 | 99.85 |
| German Beginners | 96 | 90 | 82 | 62.5 | 93.8 | 85.4 | 99.55 |
| German Continuers | 150 | 142 | 141 | 49.3 | 94.7 | 94.0 | 99.85 |
| German Extension | 37 | 36 | 36 | 21.6 | 97.3 | 97.3 | 99.65 |
| Hindi Continuers | 39 | 22 | 21 | 53.8 | 56.4 | 53.8 | 92.50 |
| Hungarian Continuers | 15 | 4 | 4 | 40.0 | 26.7 | 26.7 | 97.05 |
| Indonesian Beginners | 27 | 27 | 26 | 77.8 | 100.0 | 96.3 | 97.45 |
| Indonesian Continuers | 45 | 40 | 40 | 66.7 | 88.9 | 88.9 | 99.15 |
| Indonesian Extension | 14 | 14 | 14 | 50.0 | 100.0 | 100.0 | 99.15 |
| Italian Beginners | 282 | 279 | 253 | 72.3 | 98.9 | 89.7 | 99.45 |
| Italian Continuers | 208 | 183 | 182 | 71.2 | 88.0 | 87.5 | 99.65 |
| Italian Extension | 36 | 33 | 33 | 55.6 | 91.7 | 91.7 | 99.65 |
| Japanese Beginners | 642 | 607 | 574 | 52.3 | 94.5 | 89.4 | 99.35 |
| Japanese Continuers | 760 | 712 | 707 | 64.5 | 93.7 | 93.0 | 99.95 |
| Japanese Extension | 162 | 156 | 157 | 67.9 | 96.3 | 96.9 | 99.95 |
| Japanese in Context | 45 | 43 | 44 | 53.3 | 95.6 | 97.8 | 98.15 |
| Khmer Continuers | 12 | 9 | 12 | 58.3 | 75.0 | 100.0 | 86.70 |
| Korean Beginners | 110 | 109 | 107 | 87.3 | 99.1 | 97.3 | 99.55 |
| Korean Continuers | 14 | 14 | 14 | 78.6 | 100.0 | 100.0 | 96.95 |
| Korean \& Literature | 31 | 31 | 31 | 61.3 | 100.0 | 100.0 | 99.20 |
| Korean in Context | 51 | 51 | 51 | 74.5 | 100.0 | 100.0 | 99.50 |
| Latin Continuers | 144 | 141 | 141 | 54.9 | 97.9 | 97.9 | 99.95 |
| Latin Extension | 84 | 82 | 82 | 59.5 | 97.6 | 97.6 | 99.95 |
| Macedonian Continuers | 16 | 16 | 15 | 81.3 | 100.0 | 93.8 | 96.35 |
| Modern Greek Beginners | 75 | 75 | 70 | 64.0 | 100.0 | 93.3 | 98.45 |
| Modern Greek Continuers | 92 | 75 | 73 | 62.0 | 81.5 | 79.3 | 99.20 |
| Modern Greek Extension | 28 | 22 | 21 | 75.0 | 78.6 | 75.0 | 99.20 |
| Modern Hebrew Continuers | 41 | 32 | 31 | 46.3 | 78.0 | 75.6 | 99.25 |
| Persian Continuers | 24 | 23 | 18 | 58.3 | 95.8 | 75.0 | 86.50 |


| Course | Number all | Number HSC | Number ATAR |  | \% HSC | \% ATAR eligible | Maximum ATAR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Polish Continuers | 17 | 17 | 17 | 70.6 | 100.0 | 100.0 | 99.20 |
| Portuguese Continuers | 14 | 13 | 11 | 71.4 | 92.9 | 78.6 | 92.05 |
| Punjabi Continuers | 19 | 19 | 19 | 63.2 | 100.0 | 100.0 | 94.55 |
| Russian Continuers | 29 | 29 | 27 | 75.9 | 100.0 | 93.1 | 98.55 |
| Serbian Continuers | 23 | 22 | 23 | 52.2 | 95.7 | 100.0 | 93.30 |
| Spanish Beginners | 239 | 235 | 213 | 69.5 | 98.3 | 89.1 | 99.55 |
| Spanish Continuers | 148 | 144 | 138 | 64.2 | 97.3 | 93.2 | 99.40 |
| Spanish Extension | 32 | 32 | 31 | 65.6 | 100.0 | 96.9 | 99.00 |
| Swedish Continuers | 23 | 9 | 9 | 73.9 | 39.1 | 39.1 | 97.70 |
| Tamil Continuers | 88 | 41 | 41 | 63.6 | 46.6 | 46.6 | 99.50 |
| Turkish Continuers | 53 | 40 | 40 | 62.3 | 75.5 | 75.5 | 99.70 |
| Vietnamese Continuers | 156 | 136 | 142 | 59.6 | 87.2 | 91.0 | 96.90 |
| Automotive Exam | 234 | 201 | 102 | 11.5 | 85.9 | 43.6 | 81.25 |
| Business Services Exam | 1,304 | 1,132 | 992 | 73.6 | 86.8 | 76.1 | 99.70 |
| Construction Exam | 1,759 | 1,646 | 1,285 | 5.7 | 93.6 | 73.1 | 96.95 |
| Electrotechnology Exam | 242 | 232 | 165 | 7.4 | 95.9 | 68.2 | 95.95 |
| Entertainment Industry Exam | 681 | 659 | 594 | 49.2 | 96.8 | 87.2 | 98.05 |
| Financial Services Exam | 103 | 87 | 87 | 27.2 | 84.5 | 84.5 | 99.10 |
| Hospitality Exam | 4,577 | 4,216 | 3,786 | 73.8 | 92.1 | 82.7 | 97.75 |
| Human Services Exam | 604 | 600 | 548 | 93.5 | 99.3 | 90.7 | 97.75 |
| Information \& Digital Technology Exam | 424 | 383 | 347 | 16.3 | 90.3 | 81.8 | 95.10 |
| Primary Industries Exam | 595 | 540 | 406 | 50.6 | 90.8 | 68.2 | 90.85 |
| Retail Services Exam | 835 | 693 | 603 | 67.3 | 83.0 | 72.2 | 95.15 |
| Tourism, Travel \& Events Exam | 90 | 80 | 68 | 85.6 | 88.9 | 75.6 | 93.55 |
|  |  |  |  |  |  |  |  |
| Total | 69,518 | 61,798 | 54,308 | 52.9 | 88.9 | 78.1 | 99.95 |



## Table A2 Distributions of 2022 HSC marks by course

Notes: (i) The Number column shows the number of students who completed the course in 2022.
(ii) The Median HSC mark column shows the median HSC mark per course.
(iii) The Median Band column indicates the Performance Band in which the median HSC mark lies.
(iv) The Percentage of Students in Performance Band columns show the percentage of a course candidature in each of the Performance Bands 6 to 2. Extension courses show only Bands 4 to 2 as they have four Bands only: E1 to E4.
(v) This table excludes courses with less than 10 students.

| Course | Number | Median HSC mark | Median Band | Percentage students in Performance Band |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 6 | 5 | 4 | 3 | 2 |
| Aboriginal Studies | 737 | 74 | 4 | 15 | 20 | 24 | 22 | 14 |
| Agriculture | 1,464 | 71 | 4 | 8 | 18 | 27 | 29 | 13 |
| Ancient History | 6,336 | 74 | 4 | 9 | 25 | 30 | 20 | 11 |
| Biology | 18,891 | 71 | 4 | 6 | 20 | 27 | 26 | 16 |
| Business Studies | 17,950 | 74 | 4 | 10 | 24 | 30 | 25 | 8 |
| Chemistry | 9,929 | 74 | 4 | 9 | 24 | 31 | 21 | 11 |
| Community \& Family Studies | 8,964 | 76 | 4 | 6 | 27 | 42 | 20 | 5 |
| Dance | 840 | 83 | 5 | 19 | 47 | 26 | 8 | <1 |
| Design \& Technology | 3,622 | 79 | 4 | 13 | 34 | 35 | 14 | 3 |
| Drama | 3,231 | 82 | 5 | 21 | 38 | 29 | 11 | 1 |
| Earth \& Environmental Science | 2,224 | 75 | 4 | 6 | 27 | 36 | 23 | 8 |
| Economics | 5,378 | 79 | 4 | 15 | 35 | 26 | 17 | 6 |
| Engineering Studies | 2,346 | 74 | 4 | 9 | 21 | 32 | 24 | 12 |
| English Studies Exam | 1273 | 57 | 2 |  | <1 | 7 | 27 | 54 |
| English Standard | 30,643 | 71 | 4 | 1 | 15 | 40 | 32 | 11 |
| English Advanced | 24,661 | 83 | 5 | 15 | 53 | 26 | 6 | 1 |
| English EAL/D | 1,487 | 68 | 3 | 4 | 15 | 27 | 28 | 18 |
| English Extension 1 | 3,427 | 43 | E3 |  |  | 40 | 53 | 7 |
| English Extension 2 | 1,242 | 41 | E3 |  |  | 29 | 56 | 14 |
| Food Technology | 3,639 | 72 | 4 | 9 | 21 | 27 | 29 | 10 |
| Geography | 4,053 | 77 | 4 | 11 | 31 | 31 | 17 | 7 |
| Industrial Technology | 5,673 | 70 | 4 | 8 | 14 | 29 | 36 | 11 |
| Information Processes \& Technology | 1,808 | 74 | 4 | 6 | 22 | 37 | 20 | 12 |
| Investigating Science | 2,695 | 73 | 4 | 4 | 21 | 38 | 23 | 9 |
| Legal Studies | 10,225 | 76 | 4 | 15 | 26 | 25 | 19 | 10 |
| Mathematics Standard 1 Exam | 1,410 | 73 | 4 | 4 | 23 | 38 | 23 | 10 |
| Mathematics Standard 2 | 29,874 | 71 | 4 | 7 | 22 | 25 | 28 | 15 |
| Mathematics Advanced | 16,865 | 79 | 4 | 23 | 26 | 27 | 18 | 5 |
| Mathematics Extension 1 | 8,679 | 82 | E3 |  |  | 35 | 39 | 20 |
| Mathematics Extension 2 | 3,271 | 86 | E3 |  |  | 40 | 46 | 11 |
| Modern History | 10,153 | 75 | 4 | 10 | 25 | 33 | 21 | 9 |
| History Extension | 1,532 | 41 | E3 |  |  | 25 | 58 | 14 |
| Music 1 | 4,263 | 84 | 5 | 22 | 48 | 20 | 9 | 2 |
| Music 2 | 684 | 87 | 5 | 34 | 52 | 13 | 1 |  |
| Music Extension | 353 | 47 | E4 |  |  | 76 | 21 | 3 |
| PDH\&PE | 15,883 | 70 | 4 | 5 | 21 | 24 | 30 | 17 |
| Physics | 7,633 | 76 | 4 | 12 | 29 | 27 | 19 | 9 |
| Science Extension | 658 | 38 | E3 |  |  | 8 | 71 | 21 |


|  |  |  |  | Percentage students in Performance Band |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Number | Median HSC mark | Median Band | 6 | 5 | 4 | 3 | 2 |
| Society \& Culture | 4,614 | 78 | 4 | 11 | 32 | 32 | 18 | 5 |
| Software Design \& Development | 1,806 | 76 | 4 | 14 | 24 | 32 | 17 | 10 |
| Studies of Religion I | 8,433 | 39 | 4 | 10 | 30 | 39 | 16 | 3 |
| Studies of Religion II | 6,091 | 79 | 4 | 10 | 36 | 33 | 14 | 5 |
| Textiles \& Design | 1,485 | 81 | 5 | 17 | 37 | 25 | 14 | 5 |
| Visual Arts | 8,177 | 83 | 5 | 16 | 49 | 26 | 7 | 1 |
| Arabic Continuers | 294 | 82 | 5 | 16 | 48 | 28 | 7 | 1 |
| Arabic Extension | 70 | 41 | E3 |  |  | 16 | 74 | 9 |
| Armenian Continuers | 20 | 80 | 5 | 20 | 30 | 45 | 5 |  |
| Chinese Beginners | 59 | 83 | 5 | 31 | 25 | 27 | 7 | 2 |
| Chinese Continuers | 207 | 87 | 5 | 41 | 34 | 18 | 6 | <1 |
| Chinese Extension | 61 | 45 | E4 |  |  | 59 | 39 | 2 |
| Chinese \& Literature | 330 | 85 | 5 | 24 | 48 | 22 | 5 | 1 |
| Chinese in Context | 152 | 91 | 6 | 61 | 28 | 7 | 1 | 2 |
| Classical Hebrew Continuers | 19 | 90 | 6 | 53 | 16 | 26 | 5 |  |
| Filipino Continuers | 10 | 90 | 6 | 60 | 30 | 10 |  |  |
| French Beginners | 323 | 76 | 4 | 23 | 20 | 21 | 26 | 8 |
| French Continuers | 514 | 82 | 5 | 26 | 32 | 27 | 11 | 3 |
| French Extension | 98 | 40 | E3 |  |  | 13 | 73 | 13 |
| German Beginners | 91 | 82 | 5 | 33 | 25 | 13 | 19 | 10 |
| German Continuers | 143 | 81 | 5 | 27 | 30 | 28 | 11 | 4 |
| German Extension | 37 | 45 | E4 |  |  | 62 | 35 | 3 |
| Hindi Continuers | 32 | 86 | 5 | 25 | 59 | 6 | 6 | 3 |
| Hungarian Continuers | 12 | 88 | 5 | 42 | 42 | 17 |  |  |
| Indonesian Beginners | 27 | 85 | 5 | 26 | 37 | 22 | 15 |  |
| Indonesian Continuers | 45 | 87 | 5 | 40 | 33 | 16 | 7 | 4 |
| Indonesian Extension | 14 | 43 | E3 |  |  | 36 | 43 | 14 |
| Italian Beginners | 282 | 78 | 4 | 23 | 23 | 26 | 16 | 9 |
| Italian Continuers | 181 | 80 | 5 | 21 | 34 | 35 | 7 | 3 |
| Italian Extension | 33 | 44 | E3 |  |  | 39 | 61 |  |
| Japanese Beginners | 636 | 72 | 4 | 10 | 22 | 24 | 18 | 18 |
| Japanese Continuers | 746 | 82 | 5 | 24 | 34 | 23 | 14 | 3 |
| Japanese Extension | 161 | 44 | E3 |  |  | 45 | 45 | 9 |
| Japanese in Context | 44 | 89 | 5 | 43 | 45 | 9 | 2 |  |
| Khmer Continuers | 12 | 86 | 5 | 25 | 75 |  |  |  |
| Korean Beginners | 110 | 82 | 5 | 26 | 30 | 25 | 15 | 4 |
| Korean Continuers | 14 | 78 | 4 | 21 | 21 | 50 | 7 |  |
| Korean \& Literature | 30 | 86 | 5 | 23 | 50 | 23 | 3 |  |
| Korean in Context | 51 | 92 | 6 | 63 | 22 | 12 | 4 |  |
| Latin Continuers | 141 | 87 | 5 | 38 | 36 | 18 | 4 | 2 |
| Latin Extension | 83 | 47 | E4 |  |  | 78 | 17 | 4 |
| Macedonian Continuers | 16 | 74 | 4 | 13 | 31 | 13 | 25 | 19 |
| Modern Greek Beginners | 75 | 90 | 6 | 52 | 32 | 8 | 5 | 3 |
| Modern Greek Continuers | 80 | 87 | 5 | 39 | 38 | 19 | 1 | 4 |
| Modern Greek Extension | 23 | 43 | E3 |  |  | 35 | 65 |  |




Table A3 Descriptive statistics and selected percentiles for HSC marks and scaled marks by course
Notes: (i) The Number column shows the number of students who completed the course in 2022.
(ii) The $\mathrm{P}_{99^{\prime}} \mathrm{P}_{90^{\prime}} \mathrm{P}_{75^{\prime}} \mathrm{P}_{50^{\prime}} \mathrm{P}_{25}$ columns refer to the 99th, 90th, 75 th, 50 th and 25 th percentiles respectively.
(iii) The table excludes courses with less than 10 students completing the course in the current year, or if the students completing the course in the current year are undertaking less than 25 other ATAR courses in the same year. No percentile data are given for courses with less than 40 students.
(iv) This table should not be used as a simple HSC to scaled mark conversion table. For each HSC mark there can be a range of raw marks and therefore a range of scaled marks.

| Course | Number | Type of mark | Mean | SD | Max. mark | $\mathrm{P}_{99}$ | $\mathrm{P}_{90}$ | $\mathrm{P}_{75}$ | $\mathrm{P}_{50}$ | $\mathrm{P}_{25}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aboriginal Studies | 737 | HSC | 36.6 | 7.3 | 49.5 | 49.0 | 46.5 | 42.0 | 37.0 | 31.5 |
|  |  | scaled | 16.0 | 12.6 | 46.2 | 44.8 | 37.1 | 24.2 | 12.8 | 5.7 |
| Agriculture | 1,464 |  | 35.4 | 6.5 | 49.5 | 48.0 | 44.0 | 40.0 | 35.5 | 31.5 |
|  |  | scaled | 20.0 | 11.4 | 47.4 | 44.5 | 36.6 | 29.1 | 18.8 | 10.6 |
| Ancient History | 6,336 | HSC | 36.2 | 7.0 | 49.5 | 47.5 | 44.5 | 41.5 | 37.0 | 32.0 |
|  |  | scaled | 23.0 | 11.0 | 49.0 | 45.3 | 37.8 | 31.5 | 22.8 | 14.3 |
| Biology | 18,891 | HSC | 35.2 | 6.4 | 49.0 | 46.5 | 43.5 | 40.0 | 35.5 | 30.5 |
|  |  | scaled | 26.0 | 10.1 | 50.0 | 45.1 | 39.2 | 34.1 | 26.5 | 18.3 |
| Business Studies | 17,950 | HSC | 37.2 | 5.8 | 50.0 | 47.5 | 45.0 | 41.5 | 37.0 | 33.0 |
|  |  | scaled | 23.6 | 10.8 | 49.3 | 44.7 | 38.7 | 32.3 | 23.0 | 14.8 |
| Chemistry | 9,929 | HSC | 36.5 | 6.6 | 49.5 | 48.0 | 44.5 | 41.0 | 37.0 | 32.5 |
|  |  | scaled | 31.7 | 9.9 | 50.0 | 47.4 | 43.5 | 39.5 | 33.5 | 25.2 |
| Community \& Family Studies | 8,964 |  | 37.6 | 4.7 | 49.5 | 47.5 | 43.5 | 41.0 | 38.0 | 34.5 |
|  |  | scaled | 18.5 | 10.5 | 44.0 | 41.5 | 34.1 | 26.1 | 17.1 | 10.0 |
| Dance | 840 | HSC | 41.2 | 4.1 | 50.0 | 49.0 | 46.0 | 44.0 | 41.5 | 39.0 |
|  |  | scaled | 24.6 | 11.1 | 48.0 | 46.1 | 39.8 | 33.2 | 24.1 | 16.4 |
| Design \& Technology | 3,622 | HSC | 39.1 | 4.9 | 49.5 | 48.0 | 45.5 | 42.5 | 39.5 | 36.0 |
|  |  | scaled | 22.7 | 10.5 | 48.1 | 45.2 | 37.4 | 30.4 | 22.2 | 14.7 |
| Drama | 3,231 | HSC | 40.6 | 4.7 | 50.0 | 49.0 | 46.5 | 44.0 | 41.0 | 37.0 |
|  |  | scaled | 24.0 | 11.1 | 50.0 | 47.0 | 39.5 | 32.5 | 23.5 | 15.2 |
| Earth \& Environmental Science | 2,224 | HSC | 37.1 | 5.1 | 48.5 | 46.5 | 43.5 | 41.0 | 37.5 | 33.5 |
|  |  | scaled | 22.6 | 10.6 | 47.7 | 43.7 | 36.7 | 30.6 | 22.4 | 14.4 |
| Economics | 5,378 | HSC | 38.8 | 5.6 | 49.5 | 48.0 | 45.5 | 43.0 | 39.5 | 35.0 |
|  |  | scaled | 31.4 | 9.7 | 50.0 | 47.2 | 43.0 | 39.1 | 32.8 | 24.9 |
| Engineering Studies | 2,346 | HSC | 36.5 | 5.9 | 49.0 | 47.5 | 44.5 | 41.0 | 37.0 | 32.5 |
|  |  | scaled | 26.0 | 9.8 | 49.1 | 45.6 | 38.8 | 33.6 | 26.5 | 18.8 |
| English Studies Exam | 1,273 | HSC | 28.1 | 5.8 | 42.5 | 38.0 | 34.5 | 31.5 | 28.5 | 26.0 |
|  |  | scaled | 9.3 | 6.0 | 36.4 | 24.9 | 18.0 | 13.3 | 8.4 | 4.4 |
| English Standard | 30,643 | HSC | 35.1 | 4.5 | 48.5 | 44.0 | 40.5 | 38.5 | 35.5 | 32.0 |
|  |  | scaled | 20.1 | 8.3 | 48.4 | 39.6 | 31.3 | 25.8 | 19.7 | 14.1 |
| English Advanced | 24,661 | HSC | 41.0 | 3.8 | 49.5 | 47.5 | 45.5 | 43.5 | 41.5 | 39.0 |
|  |  | scaled | 32.1 | 8.3 | 50.0 | 46.5 | 42.2 | 38.5 | 33.1 | 26.8 |
| English EAL/D | 1,487 | HSC | 33.6 | 7.1 | 48.5 | 47.0 | 42.5 | 38.5 | 34.0 | 29.5 |
|  |  | scaled | 20.4 | 11.5 | 48.2 | 46.2 | 37.5 | 28.8 | 18.8 | 11.0 |
| English Extension 1 | 3,427 | HSC | 42.2 | 4.8 | 50.0 | 49.0 | 47.0 | 46.0 | 43.0 | 39.0 |
|  |  | scaled | 36.2 | 6.7 | 50.0 | 47.7 | 44.0 | 41.0 | 37.0 | 32.2 |
| English Extension 2 | 1,242 | HSC | 40.5 | 5.9 | 50.0 | 49.0 | 47.0 | 45.0 | 41.0 | 37.0 |
|  |  | scaled | 35.9 | 7.1 | 50.0 | 48.3 | 44.6 | 41.2 | 36.5 | 31.4 |
| Food Technology | 3,639 | HSC | 36.1 | 6.4 | 49.0 | 47.5 | 44.5 | 41.0 | 36.0 | 32.5 |
|  |  | scaled | 19.0 | 11.5 | 46.0 | 43.4 | 36.4 | 28.1 | 17.0 | 9.7 |


| Course | Number | Type of mark | Mean | SD | Max. mark | $\mathrm{P}_{99}$ | $\mathrm{P}_{90}$ | $\mathrm{P}_{75}$ | $\mathrm{P}_{50}$ | $\mathrm{P}_{25}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Geography | 4,053 | HSC | 37.8 | 6.0 | 49.0 | 47.5 | 45.0 | 42.5 | 38.5 | 34.5 |
|  |  | scaled | 25.4 | 11.0 | 50.0 | 45.7 | 39.4 | 34.1 | 26.0 | 17.4 |
| Industrial Technology | 5,673 | HSC | 35.5 | 5.8 | 49.5 | 47.5 | 43.5 | 39.0 | 35.0 | 31.5 |
|  |  | scaled | 17.7 | 10.0 | 42.0 | 39.3 | 32.2 | 25.4 | 16.4 | 9.4 |
| Information Processes \& Technology | 1,808 | HSC | 36.1 | 6.1 | 48.0 | 46.5 | 43.5 | 40.0 | 37.0 | 32.5 |
|  |  | scaled | 22.4 | 10.8 | 48.0 | 44.5 | 37.4 | 30.6 | 21.9 | 14.0 |
| Investigating Science | 2,695 | HSC | 35.9 | 5.9 | 48.0 | 46.0 | 43.0 | 40.0 | 36.5 | 32.5 |
|  |  | scaled | 19.4 | 10.7 | 45.4 | 41.4 | 34.1 | 27.9 | 19.0 | 10.4 |
| Legal Studies | 10,225 | HSC | 37.1 | 7.1 | 49.5 | 48.0 | 45.5 | 42.5 | 38.0 | 32.5 |
|  |  | scaled | 24.9 | 11.0 | 50.0 | 45.3 | 39.5 | 33.7 | 25.4 | 16.2 |
| Mathematics Standard 1 Exam | 1,410 | HSC | 36.2 | 5.8 | 49.5 | 47.0 | 43.0 | 40.0 | 36.5 | 33 |
|  |  | scaled | 13.0 | 8.7 | 34.4 | 33.0 | 26.1 | 19.0 | 11.3 | 5.9 |
| Mathematics Standard 2 | 29,874 | HSC | 35.6 | 6.4 | 50.0 | 48.0 | 44.0 | 40.5 | 35.5 | 31.0 |
|  |  | scaled | 22.1 | 10.3 | 46.0 | 42.5 | 36.3 | 30.3 | 21.6 | 13.7 |
| Mathematics Advanced | 16,865 | HSC | 39.3 | 6.0 | 50.0 | 49.0 | 47.0 | 44.5 | 39.5 | 35.0 |
|  |  | scaled | 31.7 | 9.5 | 50.0 | 47.8 | 43.7 | 39.1 | 32.5 | 25.0 |
| Mathematics Extension 1 | 8,679 | HSC | 39.0 | 8.1 | 49.5 | 48.5 | 47.0 | 46.0 | 41.0 | 34.0 |
|  |  | scaled | 40.0 | 7.7 | 50.0 | 49.2 | 47.5 | 45.6 | 42.1 | 36.7 |
| Mathematics Extension 2 | 3,271 | HSC | 40.9 | 7.3 | 50.0 | 49.0 | 47.5 | 46.0 | 43.0 | 38.0 |
|  |  | scaled | 44.2 | 5.1 | 50.0 | 49.5 | 48.5 | 47.4 | 45.6 | 42.7 |
| Modern History | 10,153 | HSC | 37.0 | 6.1 | 49.5 | 47.5 | 44.5 | 41.5 | 37.5 | 33.5 |
|  |  | scaled | 25.4 | 10.9 | 50.0 | 46.1 | 39.5 | 33.7 | 26.2 | 17.6 |
| History Extension | 1,532 | HSC | 39.9 | 6.0 | 49.0 | 48.0 | 47.0 | 45.0 | 41.0 | 37.0 |
|  |  | scaled | 33.6 | 7.3 | 50.0 | 47.4 | 42.8 | 38.8 | 34.0 | 29.2 |
| Music 1 | 4,263 | HSC | 41.2 | 4.7 | 50.0 | 48.5 | 46.5 | 44.5 | 42.0 | 38.5 |
|  |  | scaled | 21.4 | 10.6 | 46.7 | 43.3 | 36.0 | 29.4 | 21.0 | 13.0 |
| Music 2 | 684 | HSC | 43.4 | 3.1 | 50.0 | 49.0 | 47.5 | 45.5 | 43.5 | 41.5 |
|  |  | scaled | 34.2 | 8.2 | 50.0 | 48.5 | 44.1 | 40.2 | 35.3 | 28.9 |
| Music Extension | 353 | HSC | 46.1 | 4.1 | 50.0 | 50.0 | 50.0 | 49.0 | 47.0 | 45.0 |
|  |  | scaled | 36.6 | 9.2 | 50.0 | 50.0 | 50.0 | 44.1 | 37.1 | 30.7 |
| PDH\&PE | 15,883 | HSC | 35.1 | 6.1 | 49.5 | 46.5 | 43.5 | 40.0 | 35.0 | 30.5 |
|  |  | scaled | 22.8 | 10.4 | 48.1 | 43.8 | 37.3 | 31.0 | 22.3 | 14.6 |
| Physics | 7,633 | HSC | 37.4 | 6.8 | 50.0 | 48.0 | 45.5 | 42.5 | 38.0 | 33.0 |
|  |  | scaled | 30.9 | 10.4 | 50.0 | 46.8 | 43.4 | 39.3 | 32.5 | 23.6 |
| Science Extension | 658 | HSC | 37.9 | 4.8 | 50.0 | 48.0 | 44.0 | 41.0 | 38.0 | 35.0 |
|  |  | scaled | 33.8 | 7.2 | 50.0 | 48.1 | 42.5 | 38.9 | 34.4 | 30.1 |
| Society \& Culture | 4,614 | HSC | 38.3 | 5.5 | 49.5 | 48.0 | 45.0 | 42.5 | 39.0 | 35.0 |
|  |  | scaled | 23.3 | 10.8 | 48.6 | 45.5 | 38.1 | 31.5 | 22.9 | 14.6 |
| Software Design \& Development | 1,806 | HSC | 37.4 | 6.6 | 49.5 | 48.5 | 46.0 | 42.0 | 38.0 | 33.5 |
|  |  | scaled | 26.8 | 11.0 | 50.0 | 46.8 | 41.4 | 35.4 | 27.5 | 18.6 |
| Studies of Religion I | 8,433 | HSC | 38.4 | 4.8 | 50.0 | 48.0 | 45.0 | 42.0 | 39.0 | 35.0 |
|  |  | scaled | 27.3 | 9.2 | 48.9 | 45.1 | 39.5 | 34.2 | 27.6 | 20.6 |
| Studies of Religion II | 6,091 | HSC | 38.6 | 5.4 | 49.5 | 47.5 | 45.0 | 42.5 | 39.5 | 35.5 |
|  |  | scaled | 27.1 | 10.3 | 50.0 | 45.6 | 40.2 | 35.3 | 28.0 | 19.6 |
| Textiles \& Design | 1,485 | HSC | 39.3 | 5.8 | 49.0 | 48.0 | 46.0 | 43.5 | 40.5 | 35.5 |
|  |  | scaled | 23.0 | 11.2 | 48.7 | 44.5 | 38.0 | 32.0 | 22.9 | 13.5 |


| Course | Number | Type of mark | Mean | SD | Max. mark | $\mathrm{P}_{99}$ | $\mathrm{P}_{90}$ | $\mathrm{P}_{75}$ | $\mathrm{P}_{50}$ | $\mathrm{P}_{25}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Visual Arts | 8,177 | HSC | 40.9 | 4.1 | 49.5 | 48.0 | 45.5 | 44.0 | 41.5 | 38.5 |
|  |  | scaled | 22.1 | 11.1 | 49.0 | 45.5 | 37.7 | 30.7 | 21.3 | 13.2 |
| Arabic Continuers | 294 | HSC | 40.7 | 4.5 | 49.0 | 48.0 | 45.5 | 44.0 | 41.0 | 38.0 |
|  |  | scaled | 16.6 | 11.1 | 43.3 | 41.9 | 32.9 | 25.2 | 14.0 | 7.1 |
| Arabic Extension | 70 | HSC | 40.5 | 4.5 | 48.0 | 48.0 | 46.0 | 44.0 | 41.0 | 38.0 |
|  |  | scaled | 24.4 | 6.4 | 39.2 | 39.2 | 32.5 | 28.6 | 25.0 | 19.9 |
| Armenian Continuers | 20 | HSC | 40.5 | 3.7 | 46.5 |  |  |  |  |  |
|  |  | scaled | 29.4 | 12.0 | 50.0 |  |  |  |  |  |
| Chinese Beginners | 59 | HSC | 39.5 | 7.4 | 49.5 | 49.5 | 47.0 | 45.0 | 41.5 | 35.5 |
|  |  | scaled | 23.0 | 10.8 | 44.5 | 44.5 | 35.7 | 31.4 | 24.6 | 14.0 |
| Chinese Continuers | 207 | HSC | 42.7 | 4.4 | 49.0 | 48.5 | 47.5 | 46.0 | 43.5 | 40.0 |
|  |  | scaled | 34.0 | 8.7 | 50.0 | 48.3 | 45.4 | 40.6 | 35.0 | 28.6 |
| Chinese Extension | 61 | HSC | 44.6 | 2.8 | 50.0 | 50.0 | 48.0 | 46.0 | 45.0 | 43.0 |
|  |  | scaled | 38.4 | 5.8 | 50.0 | 50.0 | 45.3 | 41.7 | 39.0 | 34.5 |
| Chinese \& Literature | 330 | HSC | 41.6 | 4.0 | 48.0 | 47.5 | 45.5 | 44.5 | 42.5 | 39.0 |
|  |  | scaled | 24.7 | 11.3 | 50.0 | 46.6 | 38.8 | 33.4 | 25.3 | 15.1 |
| Chinese in Context | 152 | HSC | 43.9 | 5.5 | 49.0 | 49.0 | 47.5 | 47.0 | 45.5 | 42.5 |
|  |  | scaled | 30.6 | 10.3 | 50.0 | 46.9 | 41.7 | 38.8 | 32.0 | 24.4 |
| Classical Hebrew Continuers | 19 | HSC | 43.1 | 4.9 | 48.0 |  |  |  |  |  |
|  |  | scaled | 34.1 | 9.3 | 49.0 |  |  |  |  |  |
| Filipino Continuers | 10 | HSC | 44.6 | 2.8 | 47.5 |  |  |  |  |  |
|  |  | scaled | 20.9 | 12.4 | 39.7 |  |  |  |  |  |
| French Beginners | 323 | HSC | 37.9 | 7.2 | 50.0 | 49.0 | 47.0 | 44.0 | 38.0 | 32.5 |
|  |  | scaled | 25.0 | 10.5 | 49.1 | 45.7 | 39.5 | 32.7 | 24.6 | 16.6 |
| French Continuers | 514 | HSC | 40.4 | 5.5 | 49.0 | 49.0 | 47.0 | 45.0 | 41.0 | 37.5 |
|  |  | scaled | 34.0 | 8.7 | 50.0 | 49.3 | 44.4 | 40.6 | 35.0 | 29.0 |
| French Extension | 98 | HSC | 39.6 | 4.4 | 47.0 | 47.0 | 45.0 | 43.0 | 40.0 | 37.0 |
|  |  | scaled | 40.2 | 4.8 | 50.0 | 50.0 | 45.3 | 43.2 | 40.9 | 37.6 |
| German Beginners | 91 | HSC | 39.9 | 6.7 | 50.0 | 50.0 | 48.0 | 45.5 | 41.0 | 34.5 |
|  |  | scaled | 25.0 | 10.8 | 49.1 | 49.1 | 41.1 | 33.1 | 24.2 | 16.9 |
| German Continuers | 143 | HSC | 40.5 | 5.3 | 49.5 | 49.0 | 47.0 | 45.0 | 40.5 | 37.5 |
|  |  | scaled | 34.4 | 8.6 | 50.0 | 48.5 | 44.9 | 40.8 | 34.9 | 29.9 |
| German Extension | 37 | HSC | 44.2 | 4.2 | 50.0 |  |  |  |  |  |
|  |  | scaled | 39.0 | 5.8 | 50.0 |  |  |  |  |  |
| Hindi Continuers | 32 | HSC | 42.2 | 4.4 | 46.5 |  |  |  |  |  |
|  |  | scaled | 23.9 | 13.5 | 50.0 |  |  |  |  |  |
| Indonesian Beginners | 27 | HSC | 41.5 | 4.6 | 49.0 |  |  |  |  |  |
|  |  | scaled | 26.0 | 11.4 | 50.0 |  |  |  |  |  |
| Indonesian Continuers | 45 | HSC | 42.3 | 5.1 | 49.0 | 49.0 | 47.5 | 46.0 | 43.5 | 39.5 |
|  |  | scaled | 31.9 | 10.2 | 50.0 | 50.0 | 44.0 | 39.4 | 32.6 | 24.6 |
| Indonesian Extension | 14 | HSC | 40.2 | 7.1 | 47.0 |  |  |  |  |  |
|  |  | scaled | 32.8 | 11.7 | 50.0 |  |  |  |  |  |
| Italian Beginners | 282 | HSC | 38.5 | 7.1 | 50.0 | 49.5 | 47.5 | 44.5 | 39.0 | 34.0 |
|  |  | scaled | 25.6 | 10.9 | 48.7 | 46.6 | 40.5 | 34.5 | 25.3 | 17.7 |
| Italian Continuers | 181 | HSC | 40.4 | 4.7 | 49.0 | 49.0 | 46.0 | 44.0 | 40.0 | 38.0 |
|  |  | scaled | 31.7 | 8.6 | 50.0 | 50.0 | 42.4 | 38.1 | 31.3 | 26.9 |


| Course | Number | Type of mark | Mean | SD | Max. mark | $\mathrm{P}_{99}$ | $\mathrm{P}_{90}$ | $\mathrm{P}_{75}$ | $\mathrm{P}_{50}$ | $\mathrm{P}_{25}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Italian Extension | 33 | HSC <br> scaled | $\begin{aligned} & 42.8 \\ & 39.9 \end{aligned}$ | $\begin{aligned} & 3.4 \\ & 5.0 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 50.0 \end{aligned}$ |  |  |  |  |  |
| Japanese Beginners | 636 | HSC <br> scaled | $\begin{aligned} & 35.0 \\ & 23.2 \end{aligned}$ | $\begin{gathered} 8.1 \\ 11.7 \end{gathered}$ | $\begin{aligned} & 48.5 \\ & 47.7 \end{aligned}$ | $\begin{gathered} 48.0 \\ 47.1 \end{gathered}$ | $\begin{aligned} & 44.5 \\ & 38.7 \end{aligned}$ | $\begin{aligned} & 41.0 \\ & 32.6 \end{aligned}$ | $\begin{aligned} & 36.0 \\ & 23.3 \end{aligned}$ | $\begin{aligned} & 29.5 \\ & 13.8 \end{aligned}$ |
| Japanese Continuers | 746 | HSC <br> scaled | $\begin{gathered} 39.8 \\ 31.2 \end{gathered}$ | $\begin{aligned} & 6.3 \\ & 9.8 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 48.5 \\ & 48.3 \end{aligned}$ | $\begin{aligned} & 46.5 \\ & 43.0 \end{aligned}$ | $\begin{aligned} & 44.5 \\ & 38.7 \end{aligned}$ | 41.0 32.0 | $\begin{aligned} & 36.0 \\ & 24.9 \end{aligned}$ |
| Japanese Extension | 161 | HSC <br> scaled | $\begin{aligned} & 42.4 \\ & 38.0 \end{aligned}$ | $\begin{aligned} & 5.4 \\ & 6.1 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 48.8 \end{aligned}$ | $\begin{aligned} & 48.0 \\ & 45.9 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 42.3 \end{aligned}$ | $\begin{aligned} & 44.0 \\ & 38.2 \end{aligned}$ | $\begin{aligned} & 39.0 \\ & 34.7 \end{aligned}$ |
| Japanese in Context | 44 | HSC <br> scaled | $\begin{aligned} & 43.3 \\ & 26.8 \end{aligned}$ | $\begin{array}{r} 3.1 \\ 10.9 \end{array}$ | $\begin{aligned} & 47.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 47.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 39.2 \end{aligned}$ | $\begin{aligned} & 45.5 \\ & 36.4 \end{aligned}$ | $\begin{array}{r} 44.0 \\ 27.1 \end{array}$ | $\begin{aligned} & 41.5 \\ & 17.5 \end{aligned}$ |
| Khmer Continuers | 12 | HSC <br> scaled | $\begin{aligned} & 43.3 \\ & 15.0 \end{aligned}$ | $\begin{gathered} 1.7 \\ 8.6 \end{gathered}$ | $\begin{aligned} & 46.5 \\ & 34.1 \end{aligned}$ |  |  |  |  |  |
| Korean Beginners | 110 | HSC <br> scaled | $\begin{aligned} & 40.1 \\ & 26.7 \end{aligned}$ | $\begin{gathered} 6.2 \\ 11.0 \end{gathered}$ | $\begin{aligned} & 49.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 49.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 41.0 \end{aligned}$ | $\begin{aligned} & 45.0 \\ & 34.9 \end{aligned}$ | $\begin{aligned} & 40.5 \\ & 26.6 \end{aligned}$ | $\begin{array}{r} 36.0 \\ 17.7 \end{array}$ |
| Korean Continuers | 14 | HSC <br> scaled | $\begin{aligned} & 41.0 \\ & 25.1 \end{aligned}$ | $\begin{aligned} & 4.6 \\ & 7.7 \end{aligned}$ | $\begin{aligned} & 49.5 \\ & 42.3 \end{aligned}$ |  |  |  |  |  |
| Korean \& Literature | 30 | HSC <br> scaled | $\begin{aligned} & 42.3 \\ & 25.6 \end{aligned}$ | $\begin{array}{r} 3.6 \\ 10.4 \end{array}$ | $\begin{aligned} & 49.5 \\ & 50.0 \end{aligned}$ |  |  |  |  |  |
| Korean in Context | 51 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{aligned} & 44.2 \\ & 29.3 \end{aligned}$ | $\begin{aligned} & 4.3 \\ & 9.8 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 49.5 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 49.5 \end{aligned}$ | $\begin{gathered} 48.0 \\ 41.7 \end{gathered}$ | $\begin{aligned} & 47.0 \\ & 36.0 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 30.9 \end{aligned}$ | $\begin{aligned} & 43.0 \\ & 23.4 \end{aligned}$ |
| Latin Continuers | 141 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{aligned} & 42.3 \\ & 39.9 \end{aligned}$ | $\begin{gathered} 4.9 \\ 7.1 \end{gathered}$ | $\begin{aligned} & 49.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 49.5 \\ & 49.8 \end{aligned}$ | $\begin{aligned} & 47.5 \\ & 47.4 \end{aligned}$ | $\begin{aligned} & 45.5 \\ & 44.4 \end{aligned}$ | $\begin{aligned} & 43.5 \\ & 41.6 \end{aligned}$ | $\begin{gathered} 39.5 \\ 37.1 \end{gathered}$ |
| Latin Extension | 83 | HSC <br> scaled | $\begin{aligned} & 45.8 \\ & 41.4 \end{aligned}$ | $\begin{aligned} & 4.7 \\ & 7.4 \end{aligned}$ | $\begin{aligned} & 50.0 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 50.0 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 47.9 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 46.4 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 43.4 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 39.3 \end{aligned}$ |
| Macedonian Continuers | 16 | HSC <br> scaled | $\begin{aligned} & 37.1 \\ & 21.8 \end{aligned}$ | $\begin{aligned} & 6.8 \\ & 11.3 \end{aligned}$ | $\begin{aligned} & 48.0 \\ & 47.2 \end{aligned}$ |  |  |  |  |  |
| Modern Greek Beginners | 75 | HSC <br> scaled | $\begin{aligned} & 43.5 \\ & 27.8 \end{aligned}$ | $\begin{gathered} 5.2 \\ 10.9 \end{gathered}$ | $\begin{aligned} & 50.0 \\ & 48.7 \end{aligned}$ | $\begin{aligned} & 50.0 \\ & 48.7 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 42.1 \end{aligned}$ | $\begin{aligned} & 48.0 \\ & 36.9 \end{aligned}$ | $\begin{aligned} & 45.0 \\ & 28.1 \end{aligned}$ | $\begin{aligned} & 40.5 \\ & 20.2 \end{aligned}$ |
| Modern Greek Continuers | 80 | HSC <br> scaled | $\begin{aligned} & 42.6 \\ & 26.7 \end{aligned}$ | $\begin{aligned} & 4.8 \\ & 12.1 \end{aligned}$ | $\begin{aligned} & 48.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 48.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 47.5 \\ & 42.2 \end{aligned}$ | $\begin{aligned} & 46.5 \\ & 37.4 \end{aligned}$ | $\begin{aligned} & 43.5 \\ & 25.6 \end{aligned}$ | $\begin{gathered} 40.0 \\ 17.6 \end{gathered}$ |
| Modern Greek Extension | 23 | HSC <br> scaled | $\begin{aligned} & 43.5 \\ & 34.9 \end{aligned}$ | $\begin{aligned} & 3.3 \\ & 4.7 \end{aligned}$ | $\begin{aligned} & 50.0 \\ & 49.7 \end{aligned}$ |  |  |  |  |  |
| Modern Hebrew Continuers | 31 | HSC <br> scaled | $\begin{aligned} & 46.5 \\ & 30.8 \end{aligned}$ | $\begin{array}{r} 3.2 \\ 10.9 \end{array}$ | $\begin{aligned} & 50.0 \\ & 50.0 \end{aligned}$ |  |  |  |  |  |
| Persian Continuers | 24 | HSC <br> scaled | $\begin{aligned} & 44.1 \\ & 22.4 \end{aligned}$ | $\begin{aligned} & 3.3 \\ & 6.7 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 37.3 \end{aligned}$ |  |  |  |  |  |
| Polish Continuers | 15 | HSC <br> scaled | $\begin{aligned} & 45.8 \\ & 30.2 \end{aligned}$ | $\begin{array}{r} 2.7 \\ 10.0 \end{array}$ | $\begin{aligned} & 50.0 \\ & 50.0 \end{aligned}$ |  |  |  |  |  |
| Portuguese Continuers | 14 | HSC <br> scaled | $\begin{aligned} & 40.8 \\ & 28.0 \end{aligned}$ | $\begin{aligned} & 5.3 \\ & 11.6 \end{aligned}$ | $\begin{aligned} & 46.5 \\ & 46.4 \end{aligned}$ |  |  |  |  |  |
| Punjabi Continuers | 19 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{aligned} & 40.4 \\ & 27.8 \end{aligned}$ | $\begin{array}{r} 2.9 \\ 10.0 \end{array}$ | $\begin{aligned} & 46.0 \\ & 48.9 \end{aligned}$ |  |  |  |  |  |
| Russian Continuers | 28 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{aligned} & 44.3 \\ & 25.9 \end{aligned}$ | $\begin{gathered} 3.1 \\ 11.8 \end{gathered}$ | $\begin{aligned} & 48.0 \\ & 50.0 \end{aligned}$ |  |  |  |  |  |
| Serbian Continuers | 22 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{aligned} & 44.1 \\ & 23.9 \end{aligned}$ | $\begin{gathered} 4.1 \\ 8.8 \end{gathered}$ | $\begin{aligned} & 49.0 \\ & 42.1 \end{aligned}$ |  |  |  |  |  |


| Course | Number | Type of mark | Mean | SD | Max. mark | $\mathrm{P}_{99}$ | $\mathrm{P}_{90}$ | $\mathrm{P}_{75}$ | $\mathrm{P}_{50}$ | $\mathrm{P}_{25}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spanish Beginners | 237 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{aligned} & 39.9 \\ & 25.6 \end{aligned}$ | $\begin{gathered} 5.4 \\ 11.4 \end{gathered}$ | $\begin{aligned} & 49.5 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 47.7 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 41.6 \end{aligned}$ | 44.0 34.6 | 40.0 24.6 | $\begin{aligned} & 36.0 \\ & 16.9 \end{aligned}$ |
| Spanish Continuers | 148 | HSC <br> scaled | $\begin{aligned} & 40.3 \\ & 26.8 \end{aligned}$ | $\begin{gathered} 4.3 \\ 10.8 \end{gathered}$ | $\begin{aligned} & 48.0 \\ & 49.6 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 45.9 \end{aligned}$ | $\begin{aligned} & 45.5 \\ & 41.5 \end{aligned}$ | $\begin{aligned} & 44.0 \\ & 35.6 \end{aligned}$ | $\begin{aligned} & 41.0 \\ & 27.0 \end{aligned}$ | $\begin{aligned} & 37.0 \\ & 18.8 \end{aligned}$ |
| Spanish Extension | 32 | HSC <br> scaled | $\begin{array}{r} 43.1 \\ 30.8 \end{array}$ | $\begin{array}{r} 4.8 \\ 10.0 \end{array}$ | $\begin{aligned} & 48.0 \\ & 48.8 \end{aligned}$ |  |  |  |  |  |
| Turkish Continuers | 41 | HSC <br> scaled | $\begin{aligned} & 42.3 \\ & 22.4 \end{aligned}$ | $\begin{array}{r} 4.3 \\ 13.4 \end{array}$ | $\begin{aligned} & 49.0 \\ & 50.0 \end{aligned}$ | $\begin{aligned} & 49.0 \\ & 50.0 \end{aligned}$ | $\begin{gathered} 47.5 \\ 41.1 \end{gathered}$ | $\begin{aligned} & 46.5 \\ & 33.6 \end{aligned}$ | $\begin{aligned} & 42.0 \\ & 18.0 \end{aligned}$ | $\begin{aligned} & 39.5 \\ & 13.5 \end{aligned}$ |
| Vietnamese Continuers | 155 | HSC <br> scaled | $\begin{aligned} & 39.1 \\ & 20.9 \end{aligned}$ | $\begin{aligned} & 4.6 \\ & 11.7 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 47.0 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 46.7 \end{aligned}$ | $\begin{aligned} & 44.5 \\ & 37.8 \end{aligned}$ | $\begin{aligned} & 42.5 \\ & 29.0 \end{aligned}$ | $\begin{aligned} & 39.5 \\ & 19.3 \end{aligned}$ | $\begin{aligned} & 37.0 \\ & 12.5 \end{aligned}$ |
| Automotive Exam | 211 | HSC <br> scaled | $\begin{aligned} & 34.2 \\ & 13.0 \end{aligned}$ | $\begin{aligned} & 5.6 \\ & 8.7 \end{aligned}$ | $\begin{aligned} & 48.0 \\ & 34.5 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 34.1 \end{aligned}$ | $\begin{aligned} & 39.5 \\ & 25.0 \end{aligned}$ | $\begin{aligned} & 37.0 \\ & 18.6 \end{aligned}$ | 34.5 11.4 | $\begin{array}{r} 31.5 \\ 5.8 \end{array}$ |
| Business Services Exam | 1,176 | HSC <br> scaled | $\begin{aligned} & 37.0 \\ & 19.0 \end{aligned}$ | $\begin{gathered} 4.9 \\ 10.1 \end{gathered}$ | $\begin{aligned} & 48.0 \\ & 43.5 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 40.6 \end{aligned}$ | $\begin{aligned} & 42.5 \\ & 32.8 \end{aligned}$ | $\begin{aligned} & 40.5 \\ & 25.9 \end{aligned}$ | 37.5 18.7 | $\begin{array}{r} 34.0 \\ 11.1 \end{array}$ |
| Construction Exam | 1,709 | HSC <br> scaled | $\begin{array}{r} 38.3 \\ 16.5 \end{array}$ | $\begin{aligned} & 4.8 \\ & 9.8 \end{aligned}$ | $\begin{aligned} & 48.5 \\ & 40.4 \end{aligned}$ | 47.0 38.1 | $\begin{aligned} & 44.5 \\ & 31.0 \end{aligned}$ | $\begin{aligned} & 42.0 \\ & 24.2 \end{aligned}$ | 38.5 15.1 | $\begin{array}{r} 35.0 \\ 8.2 \end{array}$ |
| Electrotechnology Exam | 236 | HSC <br> scaled | $\begin{aligned} & 32.0 \\ & 18.3 \end{aligned}$ | $\begin{aligned} & 6.2 \\ & 8.9 \end{aligned}$ | $\begin{aligned} & 47.0 \\ & 39.9 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 38.2 \end{aligned}$ | $\begin{aligned} & 39.5 \\ & 31.9 \end{aligned}$ | $\begin{aligned} & 35.5 \\ & 23.9 \end{aligned}$ | $\begin{array}{r} 32.0 \\ 17.7 \end{array}$ | $\begin{array}{r} 28.0 \\ 11.2 \end{array}$ |
| Entertainment Industry Exam | 651 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{gathered} 39.3 \\ 21.6 \end{gathered}$ | $\begin{aligned} & 5.2 \\ & 9.4 \end{aligned}$ | $\begin{aligned} & 49.5 \\ & 44.4 \end{aligned}$ | $\begin{aligned} & 48.0 \\ & 41.5 \end{aligned}$ | $\begin{aligned} & 45.5 \\ & 34.4 \end{aligned}$ | $\begin{aligned} & 43.5 \\ & 28.7 \end{aligned}$ | $\begin{aligned} & 39.0 \\ & 20.5 \end{aligned}$ | $\begin{array}{r} 36.0 \\ 14.1 \end{array}$ |
| Financial Services Exam | 77 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{aligned} & 35.7 \\ & 24.2 \end{aligned}$ | $\begin{array}{r} 4.6 \\ 10.5 \end{array}$ | $\begin{aligned} & 48.0 \\ & 49.2 \end{aligned}$ | $\begin{aligned} & 48.0 \\ & 49.2 \end{aligned}$ | $\begin{aligned} & 42.5 \\ & 40.2 \end{aligned}$ | $\begin{aligned} & 39.0 \\ & 32.4 \end{aligned}$ | $\begin{array}{r} 35.0 \\ 21.6 \end{array}$ | $\begin{aligned} & 32.5 \\ & 15.9 \end{aligned}$ |
| Hospitality Exam | 4,300 | HSC <br> scaled | $\begin{aligned} & 38.0 \\ & 19.0 \end{aligned}$ | $\begin{gathered} 4.8 \\ 10.1 \end{gathered}$ | $\begin{aligned} & 48.5 \\ & 43.8 \end{aligned}$ | $\begin{aligned} & 46.5 \\ & 41.3 \end{aligned}$ | $\begin{aligned} & 44.0 \\ & 33.3 \end{aligned}$ | $\begin{aligned} & 41.5 \\ & 26.3 \end{aligned}$ | $\begin{aligned} & 38.5 \\ & 18.5 \end{aligned}$ | $\begin{array}{r} 35.0 \\ 11.1 \end{array}$ |
| Human Services Exam | 599 | HSC <br> scaled | $\begin{aligned} & 36.1 \\ & 20.2 \end{aligned}$ | $\begin{aligned} & 3.5 \\ & 9.3 \end{aligned}$ | $\begin{aligned} & 50.0 \\ & 42.9 \end{aligned}$ | $\begin{aligned} & 45.0 \\ & 41.3 \end{aligned}$ | $\begin{aligned} & 40.5 \\ & 33.3 \end{aligned}$ | $\begin{aligned} & 38.5 \\ & 26.8 \end{aligned}$ | $\begin{gathered} 36.0 \\ 19.2 \end{gathered}$ | $\begin{gathered} 34.0 \\ 12.7 \end{gathered}$ |
| Information \& Digital Technology Exam | 383 | HSC <br> scaled | $\begin{array}{r} 36.3 \\ 19.2 \end{array}$ | $\begin{aligned} & 4.9 \\ & 9.8 \end{aligned}$ | $\begin{aligned} & 46.0 \\ & 43.1 \end{aligned}$ | $\begin{aligned} & 44.0 \\ & 40.6 \end{aligned}$ | $\begin{aligned} & 41.5 \\ & 33.7 \end{aligned}$ | $\begin{aligned} & 39.5 \\ & 26.7 \end{aligned}$ | $\begin{aligned} & 37.0 \\ & 18.8 \end{aligned}$ | $\begin{array}{r} 34.0 \\ 11.7 \end{array}$ |
| Primary Industries Exam | 549 | $\begin{array}{r} \text { HSC } \\ \text { scaled } \end{array}$ | $\begin{array}{r} 37.3 \\ 17.1 \end{array}$ | $\begin{aligned} & 4.4 \\ & 9.3 \end{aligned}$ | $\begin{aligned} & 48.0 \\ & 39.8 \end{aligned}$ | $\begin{aligned} & 46.5 \\ & 38.5 \end{aligned}$ | $\begin{gathered} 43.0 \\ 31.0 \end{gathered}$ | $\begin{aligned} & 40.5 \\ & 24.8 \end{aligned}$ | 37.5 16.2 | $\begin{array}{r} 34.5 \\ 9.5 \end{array}$ |
| Retail Services Exam | 745 | HSC <br> scaled | $\begin{aligned} & 34.7 \\ & 16.6 \end{aligned}$ | $\begin{array}{r} 4.3 \\ 10.5 \end{array}$ | $\begin{aligned} & 46.0 \\ & 42.5 \end{aligned}$ | $\begin{aligned} & 43.0 \\ & 40.9 \end{aligned}$ | $\begin{aligned} & 39.5 \\ & 31.2 \end{aligned}$ | $\begin{aligned} & 37.5 \\ & 24.2 \end{aligned}$ | $\begin{aligned} & 34.5 \\ & 14.8 \end{aligned}$ | $\begin{array}{r} 32.0 \\ 7.4 \end{array}$ |
| Tourism, Travel \& Events Exam | 79 | HSC <br> scaled | $\begin{aligned} & 35.8 \\ & 20.0 \end{aligned}$ | $\begin{gathered} 5.5 \\ 11.0 \end{gathered}$ | $\begin{aligned} & 46.5 \\ & 45.9 \end{aligned}$ | $\begin{aligned} & 46.5 \\ & 45.9 \end{aligned}$ | $\begin{aligned} & 43.0 \\ & 37.5 \end{aligned}$ | $\begin{aligned} & 40.5 \\ & 30.4 \end{aligned}$ | 35.0 16.8 | $\begin{array}{r} 32.5 \\ 11.2 \end{array}$ |

Table A4 Distributions of HSC marks by course: 2021 and 2022
Notes: (i) The Number column shows the number of students who completed the course in the given year.
(ii) Columns $45,40,35,30$ and 25 show the percentage of the course candidature with an HSC mark less than the specified mark.
(iii) The table excludes courses with less than 40 students in either year.


|  |  |  | Percentage of students with HSC mark less than: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Year | Number | 45 | 40 | 35 | 30 | 25 |
| Geography | 2022 | 4,053 | 89.2 | 57.7 | 27.0 | 10.0 | 2.6 |
|  | 2021 | 4,438 | 90.7 | 55.6 | 25.8 | 8.1 | 1.8 |
| Industrial Technology | 2022 | 5,673 | 92.4 | 78.1 | 49.1 | 13.4 | 2.1 |
|  | 2021 | 5,667 | 93.0 | 74.7 | 47.2 | 20.6 | 4.7 |
| Information Processes \& Technology | 2022 | 1,808 | 94.2 | 72.1 | 35.3 | 15.2 | 3.5 |
|  | 2021 | 1,897 | 91.7 | 67.9 | 42.8 | 19.5 | 5.2 |
| Investigating Science | 2022 | 2,695 | 95.6 | 74.6 | 37.0 | 14.0 | 4.6 |
|  | 2021 | 2,852 | 91.5 | 59.2 | 25.0 | 7.0 | 1.7 |
| Legal Studies | 2022 | 10,225 | 85.4 | 59.0 | 33.8 | 15.2 | 5.2 |
|  | 2021 | 10,693 | 85.2 | 57.6 | 30.8 | 13.6 | 3.9 |
| Mathematics Standard 1 Exam | 2022 | 1,410 | 96.1 | 73.5 | 35.1 | 12.2 | 2.4 |
|  | 2021 | 1,461 | 95.8 | 80.7 | 49.1 | 16.6 | 3.8 |
| Mathematics Standard 2 | 2022 | 29,874 | 92.6 | 70.9 | 45.9 | 18.2 | 3.5 |
|  | 2021 | 30,035 | 94.4 | 75.2 | 48.7 | 21.4 | 6.2 |
| Mathematics Advanced | 2022 | 16,865 | 77.4 | 51.0 | 23.6 | 5.5 | 0.9 |
|  | 2021 | 16,769 | 76.8 | 49.8 | 21.2 | 6.2 | 1.9 |
| Mathematics Extension 1 | 2022 | 8,679 | 65.2 | 44.1 | 26.4 | 13.0 | 6.0 |
|  | 2021 | 8,547 | 62.7 | 42.0 | 25.7 | 13.0 | 5.8 |
| Mathematics Extension 2 | 2022 | 3,271 | 60.4 | 32.7 | 14.9 | 8.1 | 3.9 |
|  | 2021 | 3,193 | 57.2 | 30.0 | 13.4 | 4.7 | 1.4 |
| Modern History | 2022 | 10,153 | 90.2 | 65.6 | 32.1 | 11.2 | 2.6 |
|  | 2021 | 10,890 | 89.3 | 62.0 | 34.9 | 15.8 | 5.5 |
| History Extension | 2022 | 1,532 | 74.6 | 39.8 | 16.3 | 6.5 | 2.1 |
|  | 2021 | 1,742 | 76.6 | 48.9 | 22.6 | 7.3 | 2.1 |
| Music 1 | 2022 | 4,263 | 78.3 | 30.4 | 10.5 | 1.9 | 0.4 |
|  | 2021 | 4,697 | 80.0 | 35.7 | 10.6 | 1.7 | 0.3 |
| Music 2 | 2022 | 684 | 66.1 | 13.9 | 0.9 |  |  |
|  | 2021 | 710 | 54.8 | 11.5 | 0.4 |  |  |
| Music Extension | 2022 | 353 | 23.8 | 9.1 | 2.5 | 0.3 |  |
|  | 2021 | 381 | 36.0 | 17.1 | 4.7 | 1.0 | 0.3 |
| PDH\&PE | 2022 | 15,883 | 94.8 | 73.9 | 49.7 | 20.1 | 3.2 |
|  | 2021 | 16,482 | 93.1 | 69.1 | 39.6 | 13.5 | 2.7 |
| Physics | 2022 | 7,633 | 87.6 | 58.5 | 32.0 | 13.2 | 4.0 |
|  | 2021 | 7,922 | 87.6 | 59.4 | 28.7 | 9.2 | 1.8 |
| Science Extension | 2022 | 658 | 91.8 | 61.9 | 21.3 | 5.0 | 0.6 |
|  | 2021 | 715 | 89.5 | 64.8 | 27.8 | 5.9 | 0.7 |
| Society \& Culture | 2022 | 4,614 | 89.0 | 56.5 | 24.7 | 6.9 | 1.5 |
|  | 2021 | 4,739 | 87.0 | 54.5 | 20.1 | 6.2 | 2.2 |
| Software Design \& Development | 2022 | 1,806 | 86.2 | 62.0 | 30.4 | 13.1 | 2.8 |
|  | 2021 | 1,714 | 87.5 | 63.8 | 32.8 | 11.0 | 1.9 |
| Studies of Religion I | 2022 | 8,433 | 89.6 | 59.1 | 19.8 | 4.0 | 0.6 |
|  | 2021 | 8,389 | 87.0 | 58.0 | 30.6 | 8.1 | 0.9 |
| Studies of Religion II | 2022 | 6,091 | 89.9 | 53.5 | 20.5 | 6.8 | 1.5 |
|  | 2021 | 6,132 | 87.3 | 53.7 | 28.1 | 9.3 | 1.8 |
| Textiles \& Design | 2022 | 1,485 | 83.0 | 45.7 | 20.6 | 6.7 | 1.3 |
|  | 2021 | 1,189 | 83.1 | 43.3 | 19.0 | 6.7 | 2.1 |


| Course | Year | Number | Percentage of students with HSC mark less than: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 45 | 40 | 35 | 30 | 25 |
| Visual Arts | 2022 | 8,177 | 83.5 | 34.2 | 8.1 | 1.4 | 0.2 |
|  | 2021 | 8,417 | 83.0 | 36.8 | 9.3 | 1.6 | 0.2 |
| Arabic Continuers | 2022 | 294 | 84.4 | 36.4 | 8.8 | 2.0 | 1.0 |
|  | 2021 | 275 | 81.1 | 33.5 | 4.0 | 2.9 | 1.5 |
| Arabic Extension | 2022 | 70 | 84.3 | 37.1 | 10.0 | 1.4 | 1.4 |
|  | 2021 | 68 | 50.0 | 11.8 | 4.4 |  |  |
| Chinese Beginners | 2022 | 59 | 69.5 | 44.1 | 16.9 | 10.2 | 8.5 |
|  | 2021 | 67 | 62.7 | 46.3 | 26.9 | 9.0 | 1.5 |
| Chinese Continuers |  | 207 | 58.9 | 24.6 | 6.3 | 0.5 |  |
|  | 2021 | 209 | 56.9 | 28.7 | 10.5 | 1.9 |  |
| Chinese Extension | 2022 | 61 | 41.0 | 3.3 | 1.6 |  |  |
|  | 2021 | 49 | 32.7 | 16.3 | 2.0 | 2.0 |  |
| Chinese \& Literature | 2022 | 330 | 76.1 | 28.5 | 6.7 | 1.2 | 0.3 |
|  | 2021 | 373 | 78.6 | 30.3 | 7.2 | 2.1 | 0.3 |
| Chinese in Context | 2022 | 152 | 39.5 | 11.2 | 4.6 | 3.3 | 1.3 |
|  | 2021 | 130 | 37.7 | 15.4 | 4.6 | 0.8 |  |
| French Beginners | 2022 | 323 | 77.4 | 57.3 | 36.5 | 10.5 | 2.2 |
|  | 2021 | 380 | 75.0 | 48.9 | 24.5 | 12.9 | 3.9 |
| French Continuers | 2022 | 514 | 73.9 | 42.2 | 15.0 | 4.3 | 1.2 |
|  | 2021 | 598 | 67.1 | 37.0 | 12.4 | 2.5 | 0.5 |
| French Extension | 2022 | 98 | 86.7 | 40.8 | 13.3 | 3.1 |  |
|  | 2021 | 132 | 75.8 | 49.2 | 20.5 | 7.6 | 1.5 |
| German Beginners | 2022 | 91 | 67.0 | 41.8 | 28.6 | 9.9 |  |
|  | 2021 | 104 | 67.3 | 43.3 | 23.1 | 9.6 | 1.0 |
| German Continuers | 2022 | 143 | 73.4 | 43.4 | 15.4 | 4.2 |  |
|  | 2021 | 152 | 63.2 | 32.2 | 15.1 | 3.9 |  |
| Indonesian Continuers | 2022 | 45 | 60.0 | 26.7 | 11.1 | 4.4 |  |
|  | 2021 | 62 | 71.0 | 50.0 | 29.0 | 8.1 | 1.6 |
| Italian Beginners | 2022 | 282 | 77.0 | 54.3 | 28.7 | 12.8 | 4.3 |
|  | 2021 | 321 | 79.1 | 52.0 | 25.9 | 6.2 | 1.6 |
| Italian Continuers | 2022 | 181 | 79.0 | 44.8 | 9.9 | 3.3 | 0.6 |
|  | 2021 | 198 | 61.1 | 27.8 | 8.1 | 2.5 |  |
| Japanese Beginners | 2022 | 636 | 90.3 | 67.9 | 44.2 | 25.8 | 7.5 |
|  | 2021 | 545 | 87.2 | 65.1 | 43.3 | 23.1 | 9.4 |
| Japanese Continuers | 2022 | 746 | 76.1 | 42.4 | 19.4 | 5.1 | 2.0 |
|  | 2021 | 632 | 73.4 | 42.1 | 21.7 | 8.1 | 1.4 |
| Japanese Extension | 2022 | 161 | 54.7 | 25.5 | 9.3 | 3.1 | 0.6 |
|  | 2021 | 166 | 39.8 | 21.7 | 8.4 | 3.0 | 1.2 |
| Korean Beginners | 2022 | 110 | 73.6 | 43.6 | 19.1 | 4.5 | 0.9 |
|  | 2021 | 110 | 75.5 | 39.1 | 10.9 | 3.6 |  |
| Korean in Context | 2022 | 51 | 37.3 | 15.7 | 3.9 |  |  |
|  | 2021 | 42 | 28.6 | 9.5 | 2.4 |  |  |
| Latin Continuers | 2022 | 141 | 61.7 | 25.5 | 7.1 | 2.8 | 0.7 |
|  | 2021 | 154 | 52.6 | 22.7 | 7.8 | 2.6 |  |
| Latin Extension | 2022 | 83 | 21.7 | 9.6 | 4.8 | 1.2 | 1.2 |
|  | 2021 | 101 | 21.8 | 9.9 | 5.0 | 3.0 |  |



| Course | Year | Number | Percentage of students with HSC mark less than: |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 45 | 40 | 35 | 30 | 25 |
| Modern Greek Beginners | 2022 | 75 | 48.0 | 16.0 | 8.0 | 2.7 |  |
|  | 2021 | 69 | 39.1 | 15.9 | 10.1 | 4.3 |  |
| Modern Greek Continuers | 2022 | 80 | 61.3 | 23.8 | 5.0 | 3.8 |  |
|  | 2021 | 53 | 62.3 | 17.0 |  |  |  |
| Spanish Beginners | 2022 | 237 | 76.4 | 49.8 | 19.8 | 2.1 | 0.8 |
|  | 2021 | 275 | 78.2 | 46.2 | 22.9 | 9.1 | 3.3 |
| Spanish Continuers | 2022 | 148 | 85.1 | 41.9 | 14.9 | 0.7 |  |
|  | 2021 | 155 | 91.0 | 51.6 | 20.0 | 1.3 |  |
| Vietnamese Continuers | 2022 | 155 | 92.3 | 50.3 | 15.5 | 5.8 | 1.3 |
|  | 2021 | 217 | 85.3 | 31.3 | 5.1 | 1.4 |  |
| Automotive Exam | 2022 | 211 | 95.7 | 90.0 | 55.0 | 14.7 | 4.3 |
|  | 2021 | 219 | 98.2 | 87.7 | 56.2 | 23.7 | 1.8 |
| Business Services Exam | 2022 | 1,176 | 97.1 | 68.2 | 32.1 | 8.3 | 0.5 |
|  | 2021 | 1,276 | 95.2 | 66.7 | 35.9 | 12.9 | 1.5 |
| Construction Exam | 2022 | 1,709 | 92.3 | 58.9 | 23.5 | 3.1 | 0.3 |
|  | 2021 | 1,607 | 94.0 | 58.6 | 27.4 | 6.3 | 0.7 |
| Electrotechnology Exam | 2022 | 236 | 98.3 | 91.1 | 67.4 | 35.6 | 6.8 |
|  | 2021 | 231 | 97.0 | 89.2 | 64.9 | 16.5 | 1.3 |
| Entertainment Industry Exam | 2022 | 651 | 80.5 | 52.8 | 19.0 | 3.8 | 0.3 |
|  | 2021 | 827 | 87.1 | 45.9 | 13.9 | 3.0 | 1.0 |
| Financial Services Exam | 2022 | 77 | 97.4 | 77.9 | 46.8 | 5.2 | 1.3 |
|  | 2021 | 111 | 93.7 | 72.1 | 34.2 | 5.4 | 0.9 |
| Hospitality Exam | 2022 | 4,300 | 94.1 | 60.3 | 24.1 | 6.1 | 0.5 |
|  | 2021 | 4,467 | 95.7 | 70.0 | 34.7 | 11.1 | 1.8 |
| Human Services Exam | 2022 | 599 | 99.0 | 87.3 | 35.7 | 3.0 | 0.2 |
|  | 2021 | 673 | 100.0 | 88.6 | 41.5 | 7.6 | 0.4 |
| Information \& Digital Technology Exam | 2022 | 383 | 99.5 | 79.1 | 33.4 | 8.1 | 1.3 |
|  | 2021 | 418 | 97.6 | 75.4 | 30.9 | 6.9 | 1.2 |
| Primary Industries Exam | 2022 | 549 | 96.9 | 70.9 | 29.3 | 4.6 | 0.4 |
|  | 2021 | 526 | 94.9 | 72.6 | 26.6 | 4.6 | 1.7 |
| Retail Services Exam | 2022 | 745 | 99.9 | 90.3 | 50.2 | 11.0 | 1.2 |
|  | 2021 | 776 | 99.2 | 91.6 | 51.4 | 19.3 | 4.0 |
| Tourism, Travel \& Events Exam | 2022 | 79 | 96.2 | 74.7 | 45.6 | 8.9 | 1.3 |
|  | 2021 | 133 | 97.7 | 79.7 | 20.3 | 5.3 |  |

Table A5 Distributions of scaled marks by course: 2021 and 2022
Notes: (i) The Number column shows the number of students who completed the course in the given year.
(ii) Columns $45,40,35,30,25,20$ and 15 show the percentage of the course candidature with a scaled mark less than the specified mark.
(iii) The table excludes courses with less than 40 students in either year.



| Course | Year | Number | Percentage of students with scaled mark less than: |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 45 | 40 | 35 | 30 | 25 | 20 | 15 |
| Textiles \& Design | 2022 | 1,485 | 99.4 | 93.9 | 83.0 | 68.9 | 55.0 | 41.8 | 29.0 |
|  | 2021 | 1,189 | 97.7 | 91.0 | 81.8 | 70.0 | 56.4 | 42.4 | 28.2 |
| Visual Arts | 2022 | 8,177 | 98.7 | 93.4 | 85.1 | 73.3 | 60.8 | 46.5 | 30.9 |
|  | 2021 | 8,417 | 98.9 | 93.5 | 84.5 | 73.9 | 60.5 | 45.6 | 30.1 |
| Arabic Continuers |  | 294 | 100.0 | 98.0 | 92.9 | 86.1 | 73.5 | 63.9 | 52.7 |
|  | 2021 | 275 | 99.3 | 94.5 | 86.2 | 78.9 | 70.2 | 58.5 | 45.8 |
| Arabic Extension | 2022 | 70 |  | 100.0 | 94.3 | 82.9 | 50.0 | 27.1 | 8.6 |
|  | 2021 | 68 | 100.0 | 95.6 | 83.8 | 60.3 | 39.7 | 8.8 | 1.5 |
| Chinese Beginners | 2022 | 59 | 100.0 | 94.9 | 89.8 | 66.1 | 52.5 | 37.3 | 27.1 |
|  | 2021 | 67 | 95.5 | 89.6 | 80.6 | 59.7 | 46.3 | 32.8 | 13.4 |
| Chinese Continuers | 2022 | 207 | 89.9 | 73.4 | 49.3 | 31.4 | 16.9 | 6.8 | 3.4 |
|  | 2021 | 209 | 93.3 | 77.5 | 58.9 | 44.0 | 25.4 | 12.4 | 8.6 |
| Chinese Extension | 2022 | 61 | 88.5 | 62.3 | 29.5 | 8.2 | 1.6 | 1.6 |  |
|  | 2021 | 49 | 85.7 | 49.0 | 30.6 | 22.4 | 6.1 | 2.0 | 2.0 |
| Chinese \& Literature | 2022 | 330 | 97.6 | 92.1 | 78.8 | 65.2 | 49.1 | 36.1 | 24.8 |
|  | 2021 | 373 | 97.1 | 92.2 | 83.4 | 68.9 | 49.6 | 33.5 | 19.8 |
| Chinese in Context | 2022 | 152 | 96.7 | 82.9 | 59.9 | 40.8 | 26.3 | 17.1 | 9.2 |
|  | 2021 | 130 | 94.6 | 79.2 | 61.5 | 42.3 | 27.7 | 16.9 | 10.0 |
| French Beginners | 2022 | 323 | 98.1 | 90.4 | 79.6 | 65.9 | 51.4 | 36.5 | 18.6 |
|  | 2021 | 380 | 95.3 | 91.6 | 82.1 | 66.8 | 52.9 | 37.6 | 21.8 |
| French Continuers | 2022 | 514 | 91.2 | 72.6 | 49.8 | 28.6 | 16.3 | 8.0 | 3.1 |
|  | 2021 | 598 | 90.1 | 69.2 | 52.5 | 32.3 | 16.2 | 8.0 | 2.8 |
| French Extension | 2022 | 98 | 87.8 | 39.8 | 13.3 | 3.1 |  |  |  |
|  | 2021 | 132 | 79.5 | 49.2 | 20.5 | 7.6 | 2.3 | 1.5 |  |
| German Beginners |  | 91 | 97.8 | 89.0 | 80.2 | 62.6 | 52.7 | 35.2 | 18.7 |
|  | 2021 | 104 | 97.1 | 77.9 | 67.3 | 56.7 | 44.2 | 24.0 | 15.4 |
| German Continuers | 2022 | 143 | 90.9 | 69.9 | 51.0 | 25.2 | 13.3 | 7.0 | 3.5 |
|  | 2021 | 152 | 92.1 | 68.4 | 49.3 | 30.3 | 21.1 | 13.2 | 7.2 |
| Indonesian Continuers | 2022 | 45 | 95.6 | 77.8 | 57.8 | 35.6 | 26.7 | 15.6 | 8.9 |
|  | 2021 | 62 | 88.7 | 80.6 | 54.8 | 43.5 | 30.6 | 21.0 | 6.5 |
| Italian Beginners | 2022 | 282 | 97.2 | 87.9 | 76.6 | 65.2 | 48.2 | 32.3 | 17.7 |
|  | 2021 | 321 | 97.2 | 89.1 | 77.9 | 65.7 | 49.8 | 34.9 | 18.4 |
| Italian Continuers | 2022 | 181 | 95.0 | 81.2 | 65.2 | 44.2 | 19.9 | 8.3 | 4.4 |
|  | 2021 | 198 | 96.0 | 83.3 | 57.6 | 40.4 | 24.7 | 11.1 | 7.6 |
| Japanese Beginners | 2022 | 636 | 97.5 | 92.5 | 82.7 | 67.3 | 55.7 | 40.3 | 27.7 |
|  | 2021 | 545 | 99.3 | 93.9 | 83.1 | 68.6 | 54.3 | 39.1 | 26.2 |
| Japanese Continuers | 2022 | 746 | 94.0 | 79.4 | 62.2 | 42.5 | 25.6 | 13.1 | 5.4 |
|  | 2021 | 632 | 95.9 | 82.1 | 64.2 | 43.2 | 25.8 | 14.2 | 6.2 |
| Japanese Extension | 2022 | 161 | 86.3 | 59.6 | 28.0 | 8.7 | 3.1 | 1.2 |  |
|  |  | 166 | 93.4 | 68.1 | 39.8 | 18.1 | 3.0 | 1.2 | 0.6 |
| Korean Beginners | 2022 | 110 | 95.5 | 88.2 | 75.5 | 59.1 | 42.7 | 28.2 | 15.5 |
|  | 2021 | 110 | 96.4 | 89.1 | 84.5 | 65.5 | 47.3 | 29.1 | 15.5 |
| Korean in Context | 2022 | 51 | 94.1 | 86.3 | 72.5 | 43.1 | 29.4 | 19.6 | 9.8 |
|  | 2021 | 42 | 95.2 | 85.7 | 76.2 | 59.5 | 42.9 | 23.8 | 11.9 |
| Latin Continuers | 2022 | 141 | 77.3 | 43.3 | 20.6 | 7.8 | 2.8 | 2.8 | 0.7 |
|  | 2021 | 154 | 65.6 | 30.5 | 19.5 | 8.4 | 4.5 | 3.9 | 1.3 |



## Table A6 Courses that contribute to the ATAR (more than 10 units)

Notes: (i) This table shows the percentage of the course candidature who completed more than 10 units of ATAR courses and for whom all units of that course contributed to their ATAR.
(ii) The Number receiving ATAR column shows the number of students who did the course in 2022 or a previous year, and received an ATAR in 2022.
(iii) The ATAR students with $>10$ units columns show the number and percentage of ATAR students who completed more than 10 units of ATAR courses.
(iv) The Percentage who counted course column shows the percentage of the ATAR students who completed more than 10 units of ATAR courses for whom all units of that course contributed towards their ATAR.
(v) The Maximum ATAR including the course column shows the maximum ATAR of any student doing the course in any year and including all units from that course in their ATAR calculation.
(vi) The table excludes courses with less than 10 students.

|  |  | ATAR students with > 10 units |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Number receiving ATAR | Number | Percentage | Percentage who counted course | Maximum ATAR including the course |
| Aboriginal Studies | 486 | 136 | 28 | 74 | 99.10 |
| Agriculture | 1,099 | 433 | 39 | 78 | 99.70 |
| Ancient History | 5,685 | 2,130 | 37 | 84 | 99.90 |
| Biology | 18,114 | 7,465 | 41 | 82 | 99.95 |
| Business Studies | 16,604 | 5,407 | 33 | 85 | 99.90 |
| Chemistry | 9,893 | 5,543 | 56 | 76 | 99.95 |
| Community \& Family Studies | 7,367 | 2,177 | 30 | 88 | 99.10 |
| Dance | 784 | 255 | 33 | 62 | 99.80 |
| Design \& Technology | 3,180 | 1,106 | 35 | 73 | 99.80 |
| Drama | 2,851 | 1,006 | 35 | 72 | 99.90 |
| Earth \& Environmental Science | 1,929 | 603 | 31 | 85 | 98.95 |
| Economics | 5,341 | 2,559 | 48 | 74 | 99.95 |
| Engineering Studies | 2,285 | 1,133 | 50 | 71 | 99.75 |
| English Studies Exam | 559 | 99 | 18 | 100 | 87.60 |
| English Standard | 27,890 | 7,678 | 28 | 100 | 99.95 |
| English Advanced | 24,521 | 11,467 | 47 | 99 | 99.95 |
| English EAL/D | 1,338 | 362 | 27 | 100 | 99.95 |
| English Extension 1 | 3,410 | 2,234 | 66 | 87 | 99.95 |
| English Extension 2 | 1,228 | 715 | 58 | 82 | 99.95 |
| Food Technology | 2,925 | 867 | 30 | 85 | 99.30 |
| Geography | 3,823 | 1,475 | 39 | 83 | 99.90 |
| Industrial Technology | 4,050 | 1,254 | 31 | 74 | 97.05 |
| Information Processes \& Technology | 1,715 | 719 | 42 | 71 | 99.75 |
| Investigating Science | 2,283 | 822 | 36 | 85 | 98.10 |
| Legal Studies | 9,694 | 3,510 | 36 | 85 | 99.95 |
| Mathematics Standard 1 Exam | 866 | 246 | 28 | 54 | 88.35 |
| Mathematics Standard 2 | 27,589 | 7,768 | 28 | 71 | 99.70 |
| Mathematics Advanced | 15,827 | 8,411 | 53 | 72 | 99.95 |
| Mathematics Extension 1 | 8,534 | 5,911 | 69 | 91 | 99.95 |
| Mathematics Extension 2 | 3,288 | 1,701 | 52 | 98 | 99.95 |
| Modern History | 9,523 | 3,926 | 41 | 83 | 99.95 |
| History Extension | 1,535 | 1,202 | 78 | 81 | 99.95 |
| Music 1 | 3,531 | 1,186 | 34 | 61 | 99.40 |
| Music 2 | 679 | 478 | 70 | 71 | 99.95 |


|  |  | ATAR students with > 10 units |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Number receiving ATAR | Number | Percentage | Percentage who counted course | Maximum ATAR including the course |
| Music Extension | 354 | 286 | 81 | 68 | 99.95 |
| PDH\&PE | 14,516 | 4,706 | 32 | 84 | 99.80 |
| Physics | 7,558 | 4,117 | 54 | 75 | 99.95 |
| Science Extension | 659 | 527 | 80 | 78 | 99.95 |
| Society \& Culture | 4,315 | 1,314 | 30 | 84 | 99.80 |
| Software Design \& Development | 1,719 | 803 | 47 | 72 | 99.90 |
| Studies of Religion I | 8,125 | 7,005 | 86 | 81 | 99.80 |
| Studies of Religion II | 5,880 | 1,533 | 26 | 83 | 99.95 |
| Textiles \& Design | 1,278 | 354 | 28 | 82 | 98.85 |
| Visual Arts | 6,962 | 2,164 | 31 | 73 | 99.90 |
| Arabic Continuers | 248 | 85 | 34 | 85 | 96.75 |
| Arabic Extension | 54 | 47 | 87 | 85 | 88.90 |
| Armenian Continuers | 17 | 13 | 76 | 85 | 97.30 |
| Chinese Beginners | 55 | 18 | 33 | 72 | 98.40 |
| Chinese Continuers | 202 | 127 | 63 | 57 | 99.95 |
| Chinese Extension | 61 | 51 | 84 | 84 | 99.95 |
| Chinese \& Literature | 323 | 120 | 37 | 63 | 99.95 |
| Chinese in Context | 150 | 69 | 46 | 58 | 99.70 |
| Classical Greek Continuers | 10 | 10 | 100 | 70 | 99.95 |
| Classical Hebrew Continuers | 18 | 13 | 72 | 62 | 98.45 |
| Filipino Continuers | 10 | 4 | 40 | 75 | 81.35 |
| French Beginners | 308 | 125 | 41 | 74 | 99.20 |
| French Continuers | 504 | 322 | 64 | 65 | 99.95 |
| French Extension | 97 | 78 | 80 | 83 | 99.85 |
| German Beginners | 82 | 26 | 32 | 73 | 99.55 |
| German Continuers | 141 | 94 | 67 | 63 | 99.80 |
| German Extension | 36 | 31 | 86 | 71 | 99.40 |
| Hindi Continuers | 21 | 17 | 81 | 47 | 86.25 |
| Indonesian Beginners | 26 | 10 | 38 | 70 | 97.45 |
| Indonesian Continuers | 40 | 26 | 65 | 65 | 99.15 |
| Indonesian Extension | 14 | 11 | 79 | 55 | 99.15 |
| Italian Beginners | 253 | 122 | 48 | 72 | 99.45 |
| Italian Continuers | 182 | 103 | 57 | 61 | 99.60 |
| Italian Extension | 33 | 25 | 76 | 76 | 99.65 |
| Japanese Beginners | 574 | 168 | 29 | 71 | 99.35 |
| Japanese Continuers | 707 | 402 | 57 | 64 | 99.95 |
| Japanese Extension | 157 | 123 | 78 | 88 | 99.95 |
| Japanese in Context | 44 | 13 | 30 | 38 | 95.35 |
| Khmer Continuers | 12 | 6 | 50 | 100 | 86.70 |
| Korean Beginners | 107 | 41 | 38 | 76 | 99.55 |
| Korean Continuers | 14 | 4 | 29 | 75 | 96.95 |
| Korean \& Literature | 31 | 7 | 23 | 57 | 99.00 |
| Korean in Context | 51 | 25 | 49 | 64 | 99.00 |
| Latin Continuers | 141 | 118 | 84 | 64 | 99.95 |


|  |  | ATAR students with > 10 units |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Course | Number receiving ATAR | Number | Percentage | Percentage who counted course | Maximum ATAR including the course |
| Latin Extension | 82 | 72 | 88 | 75 | 99.95 |
| Macedonian Continuers | 15 | 8 | 53 | 63 | 92.05 |
| Modern Greek Beginners | 70 | 38 | 54 | 71 | 98.45 |
| Modern Greek Continuers | 73 | 37 | 51 | 65 | 99.20 |
| Modern Greek Extension | 21 | 19 | 90 | 100 | 99.20 |
| Modern Hebrew Continuers | 31 | 6 | 19 | 67 | 99.25 |
| Persian Continuers | 18 | 6 | 33 | 100 | 86.50 |
| Polish Continuers | 17 | 11 | 65 | 73 | 99.20 |
| Portuguese Continuers | 11 | 6 | 55 | 50 | 92.05 |
| Punjabi Continuers | 19 | 17 | 89 | 47 | 94.55 |
| Russian Continuers | 27 | 7 | 26 | 71 | 98.55 |
| Serbian Continuers | 23 | 10 | 43 | 60 | 93.30 |
| Spanish Beginners | 213 | 71 | 33 | 73 | 99.55 |
| Spanish Continuers | 138 | 70 | 51 | 63 | 99.40 |
| Spanish Extension | 31 | 22 | 71 | 77 | 99.00 |
| Tamil Continuers | 41 | 35 | 85 | 54 | 99.30 |
| Turkish Continuers | 40 | 18 | 45 | 50 | 96.25 |
| Vietnamese Continuers | 142 | 38 | 27 | 63 | 96.90 |
| Automotive Exam | 102 | 42 | 41 | 48 | 81.25 |
| Business Services Exam | 992 | 374 | 38 | 74 | 99.70 |
| Construction Exam | 1,285 | 420 | 33 | 77 | 96.25 |
| Electrotechnology Exam | 165 | 50 | 30 | 60 | 93.85 |
| Entertainment Industry Exam | 594 | 188 | 32 | 80 | 97.60 |
| Financial Services Exam | 87 | 44 | 51 | 64 | 99.10 |
| Hospitality Exam | 3,786 | 1,175 | 31 | 75 | 97.75 |
| Human Services Exam | 548 | 226 | 41 | 77 | 97.05 |
| Information \& Digital Technology Exam | 347 | 115 | 33 | 70 | 93.95 |
| Primary Industries Exam | 406 | 150 | 37 | 71 | 90.85 |
| Retail Services Exam | 603 | 222 | 37 | 68 | 95.15 |
| Tourism, Travel \& Events Exam | 68 | 23 | 34 | 70 | 93.55 |

## Table A7 ATAR distribution

Note: (i) This table shows the number of students receiving each ATAR from 99.95 to 99.00 and the number corresponding to the stated ATAR ranges down to 30.00-30.95.
(ii) The median ATAR in 2022 was 71.25 .

| ATAR | Number | Number on or above | Percentage on or above |
| :---: | :---: | :---: | :---: |
| 99.95 | 48 | 48 | 0.1 |
| 99.90 | 48 | 96 | 0.2 |
| 99.85 | 48 | 144 | 0.3 |
| 99.80 | 46 | 190 | 0.3 |
| 99.75 | 50 | 240 | 0.4 |
| 99.70 | 47 | 287 | 0.5 |
| 99.65 | 49 | 336 | 0.6 |
| 99.60 | 48 | 384 | 0.7 |
| 99.55 | 44 | 428 | 0.8 |
| 99.50 | 50 | 478 | 0.9 |
| 99.45 | 49 | 527 | 1.0 |
| 99.40 | 46 | 573 | 1.1 |
| 99.35 | 48 | 621 | 1.1 |
| 99.30 | 42 | 663 | 1.2 |
| 99.25 | 51 | 714 | 1.3 |
| 99.20 | 53 | 767 | 1.4 |
| 99.15 | 48 | 815 | 1.5 |
| 99.10 | 47 | 862 | 1.6 |
| 99.05 | 44 | 906 | 1.7 |
| 99.00 | 53 | 959 | 1.8 |
| 99.00-99.95 | 959 | 959 | 1.8 |
| 98.00-98.95 | 956 | 1,915 | 3.5 |
| 97.00-97.95 | 959 | 2,874 | 5.3 |
| 96.00-96.95 | 968 | 3,842 | 7.1 |
| 95.00-95.95 | 954 | 4,796 | 8.8 |
| 94.00-94.95 | 959 | 5,755 | 10.6 |
| 93.00-93.95 | 958 | 6,713 | 12.4 |
| 92.00-92.95 | 967 | 7,680 | 14.1 |
| 91.00-91.95 | 954 | 8,634 | 15.9 |
| 90.00-90.95 | 958 | 9,592 | 17.7 |
| 89.00-89.95 | 966 | 10,558 | 19.4 |
| 88.00-88.95 | 956 | 11,514 | 21.2 |
| 87.00-87.95 | 960 | 12,474 | 23.0 |
| 86.00-86.95 | 957 | 13,431 | 24.7 |
| 85.00-85.95 | 943 | 14,374 | 26.5 |
| 84.00-84.95 | 961 | 15,335 | 28.2 |
| 83.00-83.95 | 947 | 16,282 | 30.0 |
| 82.00-82.95 | 955 | 17,237 | 31.7 |
| 81.00-81.95 | 923 | 18,160 | 33.4 |
| 80.00-80.95 | 956 | 19,116 | 35.2 |
| 79.00-79.95 | 948 | 20,064 | 36.9 |
| 78.00-78.95 | 919 | 20,983 | 38.6 |
| 77.00-77.95 | 946 | 21,929 | 40.4 |


| ATAR | Number | Number on or above | Percentage on or above |
| :---: | :---: | :---: | :---: |
| 76.00-76.95 | 928 | 22,857 | 42.1 |
| 75.00-75.95 | 918 | 23,775 | 43.8 |
| 74.00-74.95 | 914 | 24,689 | 45.5 |
| 73.00-73.95 | 917 | 25,606 | 47.1 |
| 72.00-72.95 | 911 | 26,517 | 48.8 |
| 71.00-71.95 | 903 | 27,420 | 50.5 |
| 70.00-70.95 | 896 | 28,316 | 52.1 |
| 69.00-69.95 | 890 | 29,206 | 53.8 |
| 68.00-68.95 | 876 | 30,082 | 55.4 |
| 67.00-67.95 | 881 | 30,963 | 57.0 |
| 66.00-66.95 | 861 | 31,824 | 58.6 |
| 65.00-65.95 | 868 | 32,692 | 60.2 |
| 64.00-64.95 | 848 | 33,540 | 61.8 |
| 63.00-63.95 | 837 | 34,377 | 63.3 |
| 62.00-62.95 | 830 | 35,207 | 64.8 |
| 61.00-61.95 | 826 | 36,033 | 66.3 |
| 60.00-60.95 | 798 | 36,831 | 67.8 |
| 59.00-59.95 | 798 | 37,629 | 69.3 |
| 58.00-58.95 | 792 | 38,421 | 70.7 |
| 57.00-57.95 | 772 | 39,193 | 72.2 |
| 56.00-56.95 | 751 | 39,944 | 73.6 |
| $55.00-55.95$ | 752 | 40,696 | 74.9 |
| 54.00-54.95 | 739 | 41,435 | 76.3 |
| 53.00-53.95 | 734 | 42,169 | 77.6 |
| 52.00-52.95 | 711 | 42,880 | 79.0 |
| 51.00-51.95 | 712 | 43,592 | 80.3 |
| 50.00-50.95 | 692 | 44,284 | 81.5 |
| 49.00-49.95 | 674 | 44,958 | 82.8 |
| 48.00-48.95 | 661 | 45,619 | 84.0 |
| 47.00-47.95 | 615 | 46,234 | 85.1 |
| 46.00-46.95 | 614 | 46,848 | 86.3 |
| 45.00-45.95 | 582 | 47,430 | 87.3 |
| 44.00-44.95 | 566 | 47,996 | 88.4 |
| 43.00-43.95 | 528 | 48,524 | 89.3 |
| 42.00-42.95 | 498 | 49,022 | 90.3 |
| 41.00-41.95 | 474 | 49,496 | 91.1 |
| 40.00-40.95 | 453 | 49,949 | 92.0 |
| 39.00-39.95 | 425 | 50,374 | 92.8 |
| 38.00-38.95 | 379 | 50,753 | 93.5 |
| 37.00-37.95 | 365 | 51,118 | 94.1 |
| 36.00-36.95 | 328 | 51,446 | 94.7 |
| 35.00-35.95 | 309 | 51,755 | 95.3 |
| 34.00-34.95 | 280 | 52,035 | 95.8 |
| 33.00-33.95 | 253 | 52,288 | 96.3 |
| 32.00-32.95 | 226 | 52,514 | 96.7 |
| 31.00-31.95 | 220 | 52,734 | 97.1 |
| 30.00-30.95 | 190 | 52,924 | 97.5 |

Table A8 ATAR percentiles: 2018-2022
Note: This table shows the ATAR at selected percentiles of the ATAR cohort.

| Percentile | ATAR 2018 | ATAR 2019 | ATAR 2020 | ATAR 2021 | ATAR 2022 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 100 | 99.95 | 99.95 | 99.95 | 99.95 | 99.95 |
| 99 | 99.40 | 99.40 | 99.40 | 99.40 | 99.40 |
| 98 | 98.80 | 98.80 | 98.80 | 98.80 | 98.85 |
| 95 | 97.00 | 97.00 | 97.05 | 97.05 | 97.15 |
| 90 | 94.00 | 94.00 | 94.10 | 94.15 | 94.30 |
| 85 | 91.00 | 91.05 | 91.15 | 91.20 | 91.50 |
| 80 | 88.00 | 88.05 | 88.25 | 88.30 | 88.65 |
| 75 | 85.00 | 85.05 | 85.30 | 85.35 | 85.80 |
| 70 | 82.00 | 82.05 | 82.30 | 82.40 | 82.95 |
| 60 | 75.85 | 75.95 | 76.30 | 76.50 | 77.20 |
| 50 | 69.65 | 69.75 | 70.15 | 70.40 | 71.25 |
| 40 | 63.15 | 63.25 | 63.75 | 64.05 | 65.10 |
| 30 | 56.20 | 56.35 | 56.90 | 57.25 | 58.50 |

Table A9 Relationship between the ATAR and aggregates: 2018-2022
Note: This table shows the lowest aggregate of scaled marks corresponding to each of the selected ATARs.

|  | Lowest aggregate |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ATAR | 2018 | 2019 | 2020 | 2021 | 2022 |
| 99.95 | 476.3 | 476.7 | 478.1 | 478.8 | 478.1 |
| 99.50 | 455.5 | 454.5 | 458.8 | 458.7 | 459.9 |
| 99.00 | 444.5 | 443.8 | 447.8 | 448.0 | 449.1 |
| 98.00 | 429.9 | 429.6 | 433.8 | 433.7 | 434.3 |
| 95.00 | 402.8 | 402.0 | 404.2 | 404.8 | 404.6 |
| 90.00 | 371.1 | 370.0 | 370.1 | 369.8 | 368.9 |
| 85.00 | 343.1 | 342.2 | 341.8 | 340.2 | 338.9 |
| 80.00 | 318.2 | 316.3 | 315.8 | 313.5 | 310.9 |
| 75.00 | 294.5 | 291.7 | 290.8 | 288.0 | 285.2 |
| 70.00 | 271.1 | 268.6 | 267.2 | 263.8 | 259.5 |
| 65.00 | 248.1 | 245.9 | 244.1 | 239.8 | 234.4 |
| 60.00 | 224.1 | 223.5 | 221.1 | 217.2 | 210.4 |
| 55.00 | 201.0 | 200.2 | 176.8 | 198.3 | 195.4 |
| 50.00 | 178.0 |  |  | 172.8 | 186.4 |



## Report on the Scaling of the 2022

## NSW Higher School Certificate

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## About this publication

This report contains information on the calculation of the Australian Tertiary Admission Rank (ATAR) in 2022. It includes an overview of the HSC and the ATAR, a breakdown of the scaling process, analysis of HSC and ATAR statistics and notes on trends for the year.

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