Some background

The Victorian Curriculum and Assessment Authority (VCAA) administers the two senior secondary certificates available for Victorian students. The Victorian Certificate of Education (VCE) is awarded for the successful completion of secondary education and provides pathways into tertiary education, training and work. The Victorian Certificate of Applied Learning (VCAL) is a practical work related certificate and provides pathways into training, apprenticeships and work.

The Victorian Tertiary Admissions Centre (VTAC) administers the application and offer process for tertiary institutions in Victoria—universities, Technical and Further Education (TAFE) institutes and independent tertiary colleges.

To assist tertiary institutions in selecting students VTAC provides an overall measure of each student’s performance across all their Year 12 studies. This overall measure is called the Australian Tertiary Admission Rank (ATAR).

The following explanation will help you understand how the ATAR has been calculated.

Tertiary selection for school leavers

VTAC administers the course application, selection and offer processes, and provides applicant information (including VCE and VCAL results) to the tertiary institution selection officers. When selecting students, selection officers largely use information about each applicant’s VCE performance. The information used, and how it is used, varies between institutions and courses.

First, an applicant must meet the minimum tertiary entrance requirements.

For higher education courses this is usually satisfactory completion of the VCE including the completion of Units 3 and 4 in one of the VCE English studies in the same year. The same minimum requirement applies for most VET courses, however it does vary between institutions.

For more information about minimum tertiary entrance requirements please see the VTAC Guide or VTAC website.

Second, an applicant must meet any VCE prerequisites for the course.

Students not satisfying the prerequisites are generally not considered for the course.

The third factor used in selection is an overall measure of how well an applicant performed in all their VCE studies compared with all other VCE students. This measure is called the Australian Tertiary Admission Rank (ATAR) and is developed for the purposes of tertiary selection only.

The ATAR is only calculated for students who have completed their VCE and have met tertiary entrance requirements.

The ATAR is not the only mechanism used for tertiary selection, and it is not used for all VCE applicants. A large number of courses use a range of other selection mechanisms such as interviews, performance auditions, assessment of folios and tests such as aptitude tests. Other criteria may include performance in prerequisite studies or other studies relevant to the course. Applications for special consideration are also taken into account.

Vocational Education and Training (VET) programs

VET programs included in the VCE Unit 1 to 4 framework contribute to the ATAR in the same way as VCE studies.

Scored Unit 3 and 4 VET sequences are deemed equivalent to VCE Unit 3 and 4 sequences.

Un-scored Unit 3 and 4 VCE VET sequences may count as a fifth and/or sixth increment which is calculated from the average of the Primary Four VTAC Scaled Study Scores.
Where the VCAA has granted block credit at Units 3 and 4 level, recognised VET or Further Education qualifications at AQF3 or above are eligible for inclusion as a fifth or sixth study increment in the calculation of the ATAR. This increment is calculated as for un-scored Unit 3 and 4 VET sequences.

Approved Higher Education Studies in Schools

Students undertaking an approved Higher Education Study in Year 12 can include the result as an increment in the ATAR (fifth or sixth study) provided that it is passed, that VCAA co-requisite or prerequisite conditions were met, and study combination restrictions were met. An increment will be awarded for the Higher Education Study, depending on the level of results achieved in the Higher Education Study:

- If the student’s average result over all the Higher Education Study units is at least 90%, the Higher Education increment will be 5.0.
- If the student’s average result over all the HE study units is at least 80% but less than 90%, the Higher Education increment will be 4.5.
- If the student’s average result over all the HE study units is at least 70% but less than 80%, the Higher Education increment will be 4.0.
- If the student’s average result over all the HE study units is at least 60% but less than 70% the Higher Education increment will be 3.5.
- If the student’s average result over all the HE study units is at least 50% but less than 60% the Higher Education increment will be 3.0.

Restrictions

There are some restrictions on how certain combinations of studies may be counted for an ATAR.

In each of the study areas of English, mathematics, history, information technology, languages and music:

- at most two results can contribute to the Primary Four
- at most three results can contribute to the ATAR, the third being counted as a 10% increment for a fifth or sixth study.

This includes Higher Education studies also. So, if an ATAR incorporates a Higher Education study increment from any of the study areas listed above, then at most two VTAC Scaled Study Scores and/or VET increments from that study area may be used.

There are other specific restrictions where two or more studies have similar content, or where studies have been combined.

There are no restrictions on the number of VET results that can be counted in the 2013 ATAR. However, there are industry area restrictions on VET studies similar to the study area restrictions listed above. There are 26 separate industry areas.

For further information refer to the VICTER (Victorian Tertiary Entrance Requirements) publication available on the VTAC website www.vtac.edu.au/pdf/publications/victer2016.pdf

How is the ATAR calculated?

The following process is used to calculate each student’s ATAR.

All Study Scores are scaled to adjust for the fact that it is more difficult to obtain a high Study Score in some studies than others. Once they have been scaled, they are referred to as VTAC Scaled Study Scores.

An Aggregate is calculated by adding:

- a student’s best VTAC Scaled Study Score in any one of the English studies, plus
- the VTAC Scaled Study Scores of their next best three permissible studies, plus
- 10 per cent of the VTAC Scaled Study Score for a fifth study (where available), plus
- 10 per cent of the VTAC Scaled Study Score for a sixth study (where available).

The scores contributing to the Aggregate are subject to the study restrictions described above.

The Aggregate is a number between 0 and a value over 210. All eligible students are then ranked in order of their Aggregate, and a percentage rank is assigned to distribute students as evenly as possible over a 100 point scale. All students with the same Aggregate receive the same percentage rank. If a number of students are tied on a particular Aggregate the number that receives the corresponding percentage rank may increase.

Finally, the percentage rank is converted to an ATAR, which is the estimate of the percentage of the population in the relevant age group that the student outperformed, taking into account the students who have successfully completed VCE as well as those who moved or left school before Year 12.

The ATAR is a number from 0 and 99.95 in intervals of 0.05. The highest rank is 99.95, the next highest 99.90, and so on. The lowest automatically reported rank is 30.00, with ranks below 30.00 being reported as ‘less than 30’.

A complete list of studies and VTAC Scaled Study Scores used in the calculation of a student’s ATAR are included on their ATAR statement.

Why are VCE results scaled?

Each of a student’s Study Scores provided by the VCAA is calculated from the total marks the student receives for each graded assessment in that study. The Study Scores for all studies are reported on a scale of 0 to 50 with an average score of 30.

The Study Score is not a score out of 50. It is a ranking or relative position which shows a student’s performance compared with all other students who took that study in that year. A student with a Study Score of 30 is in the middle of the cohort, or has performed better than about half of all students who took that study in that year. A student with a Study Score of 40 has performed better than about 91% of all students who took that study in that year.

What this means is that the middle student in any study will have a Study Score of 30, regardless of how strong the other students were in the study and how difficult it was to achieve the middle ranking.

VTAC’s role is to provide a way of ranking students that is fair to students, regardless of the studies they have taken.

Where the student competition in a study is higher, Study Scores have to be adjusted upwards; otherwise students doing that study would be unfairly disadvantaged.

Similarly, in a study where the student competition is lower, the Study Scores have to be adjusted downwards; otherwise students doing that study would be unfairly advantaged.

Scaling ensures that it is possible for students to attain a high ATAR regardless of the combination of studies they undertake.

This is not always well understood and many students believe that to achieve their best possible ATAR they need to choose studies that are scaled up. This is not true and may even work against them.

If a student chooses a study that they are not very good at simply because it will be scaled up, the Study Score they receive will be a lot lower than what they would expect in a study they are good at and that interests them. Yes, the score will be scaled up, but from a lower Study Score. It is unlikely that the VTAC Scaled Study Score would be any higher than if they had chosen a more suitable study, even one that is scaled down.

The way to ensure that a student achieves the best ATAR is to choose studies according to what interests them; what they are good at; and what studies they need for future study.

The calculation of the ATAR is a complicated process, but it is the fairest system developed by experts which allows students to undertake the studies they want and enables tertiary institutions to compare students who have completed different combinations of VCE studies.

The use of the ATAR guarantees that all studies are treated equally and provides students with a common score for tertiary selection across Australia.

How does scaling work?

VTAC adjusts the Study Scores for each study to take account of how strong the students were in the study and how difficult it was to achieve the middle ranking. The strength of competition in each study is measured by how well the students performed in all their other studies.

In each study, the Study Scores are adjusted so that the overall level of scores in that study matches the scores obtained by the same group of students in all of their other studies.

For example, in Chemistry in 2012 the average Study Score was 30, but the students who took Chemistry averaged 34 for all their studies (including Chemistry). This shows that the students who did Chemistry in 2012 were of above average strength in their other studies. Therefore, the scaling process adjusted the Study Scores upwards so that the average VTAC Scaled Study Score for Chemistry was set at 34.

The 2012 Geography students averaged 29 in all their studies (including Geography). So, the scaling process adjusted the Study Scores downwards so that the average VTAC Scaled Study Score for Geography was 29.

In some studies the scaling process produces VTAC Scaled Study Scores that are greater than 50. They can go as high as 55. However, the minimum VTAC Scaled Study Score cannot go below zero.
VCE studies are always scaled in the year in which they were undertaken. This may not necessarily be in the year in which a student receives their ATAR.

This scaling process is carried out each year for each VCE study and VCE VET program for which there is a Study Score. There are no predetermined outcomes—the adjustments are based on the performance of students each year. Nevertheless, the process is very stable and there is little difference in the scaled VTAC Scaled Study Scores from year to year.

**Mathematics and Languages**

**Mathematics**

VCE mathematics studies are designed to cater for students of differing abilities and interests. Specialist Mathematics is the most difficult, followed by Mathematical Methods (CAS) and then by Further Mathematics.

To ensure that students undertaking the more difficult mathematics studies are not disadvantaged, all three mathematics studies are scaled against each other as well as being scaled against all other studies. The higher of the two resulting scales is used.

**Languages**

As a result of government policy to encourage the study of languages each Language is adjusted up by adding five to the initial VTAC Scaled Study Score average. All students of a Language receive an adjustment, but it is not a uniform adjustment.

For example a student achieving a perfect Study Score of 50 is guaranteed a VTAC Scaled Study Score of at least 50. The maximum VTAC Scaled Study Score only goes above 50 when the average score is very high (the scaled mean plus twice the scaled standard deviation exceeds 50). Published means for each Language include this adjustment.

**Other variables**

**Previous VCE studies**

VCE studies are always scaled in the year in which they were undertaken (this may not necessarily be in the year in which a student receives their ATAR).

**Further VCE study**

Students who have previously obtained an ATAR, but have undertaken further study resulting in an additional Study Score or Increment, are eligible to have their ATAR recalculated. The higher of the two will be recorded and reported as an ATAR. Ranking for courses will be based on the highest ATAR achieved. VTAC will, however, inform course selection authorities of all of an applicant’s VCE results—including those not contributing to their ATAR.

**Notional ATAR**

A ‘Notional ATAR’ is used to rank students who have a previous Year 12 (other than VCE) or some other qualification (e.g. the International Baccalaureate, also known as the IB).

A Notional ATAR is created for:

- all applicants who successfully completed a full Victorian Year 12 attempt prior to 1992,
- all applicants who (without having successfully completed a full Victorian Year 12 attempt prior to 1992) have for the first time, at least four Study Scores and VCE (HSC) ‘Group 1’ subjects, or their predecessors in combination including any one of the English group (i.e. at least four scorable subjects), and
- all International Baccalaureate students who qualify for the IB Diploma in the current year.

Note: Only Victorian IB students who sit the GAT will be issued with a Notional ATAR statement.

**Interstate use of the ATAR**

If a student has applied to institutions in other Australian states they will be considered on the basis of their ATAR.

**Interrupted study status**

Applicants granted official interrupted study status by the VCAA should seek advice from VTAC about the applicability of rules and provisions in this publication. In general, the rules that require completion of Units 3 and 4 in the one year do not apply to applicants granted interrupted study status in the studies concerned.

Remember, there is no pass or fail ATAR. Every VCE student who receives an ATAR has successfully completed the VCE. An ATAR of 50 is not the pass rank, nor is it the average rank. An ATAR of 50 means a student has performed better than 50% of the state population in the relevant age group.

### Example of a 2012 aggregate calculation

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<th>Year</th>
<th>Study</th>
<th>Results</th>
<th>Study Score</th>
<th>VTAC Scaled Study Score</th>
<th>Contribution</th>
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<td><strong>90.05</strong></td>
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</tbody>
</table>

Notes:

- The entire VTAC Scaled Study Score contributed for the Primary 4 studies, while the next two studies each contributed 10% of their VTAC Scaled Study Score.
- Some studies were scaled up while others were scaled down.
- One study from 2011 was included.

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