

Reporting results: Score aggregation

1 Study scores

A study score indicates how a student performed in relation to all other students who took the study. It is calculated using the student's final scores for School-assessed Coursework, School-assessed Tasks, Externally-assessed Tasks and examinations for each study.

To receive a study score, students must achieve two or more graded assessments in the study and receive S for both Units 3 and 4 in the same academic year, unless they have Interrupted Studies status and have met these requirements over two academic years. The following table demonstrates how these requirements are met.

Study score scenarios

	2015		2016		Sequence requirement met	2016 study score
	Unit 3	Unit 4	Unit 3	Unit 4		
Study A	N	S	S	Withdrawn	Yes	No
Study B	S	N	N or J	S	Yes	No
Study C	S	N	S	S	Yes	Yes

1.1 Study score calculation

The final score for each graded assessment is standardised. This is done by subtracting the state mean for a graded assessment from the student's final score for that graded assessment, and dividing the result by the state standard deviation for the graded assessment, as per the following formula:

Standardised score = (final score – state mean) / state standard deviation

The standardised score for each graded assessment is multiplied by its percentage contribution to the study score. In some studies the graded assessments are equally weighted, while in others they are weighted differently. For English, the formula is as follows:

(Standardised Unit 3 coursework score × 0.25) + (Standardised Unit 4 coursework score × 0.25) + (Standardised November examination score × 0.50)

Students' weighted standardised scores are summed. For the VCE studies, up to three weighted standardised scores are added together. The weighted totals are ranked in descending order. When students have the same total they are given the highest rank of the group; for example, in a study of 1500 students, if three students have the equal highest total, each will be assigned the rank of 1500. The next highest total will be assigned the rank of 1497.

The ranks are then normalised using an inverse normal function. The scores resulting from this transformation are distributed normally, with a mean of 0 and a standard deviation of 1. The normalised scores are then converted to a scale with a mean of 30 and standard deviation of 7, truncated at 0 and 50. This produces a possible study score ranging from 0 to 50, with most study scores between 23 and 37. Further adjustments are made for studies that have small numbers of students.

1.2 Calculating a VCE VET study score

Some VCE VET programs include scored assessment. In these programs students receive a score and a grade for each of two components:

- School-assessed Coursework, a set of tasks students undertake in the Unit 3 and 4 sequence of their program
- an examination based on the Unit 3 and 4 sequence, set by the VCAA.

The statistically moderated School-assessed Coursework score and the examination score are used to calculate study scores by the same procedures as for other VCE studies.

1.3 Study score calculation for students with Interrupted Studies status

Students who have been granted Interrupted Studies status will have their study scores calculated using graded assessments across two years, provided they have achieved two or more graded assessments in the study and received S for both Units 3 and 4. The best results for each graded assessment across the two years of study are used when the study score is calculated. Contact Student Records and Results for clarification of these calculations. The following table demonstrates how these requirements are applied.

Examples of study scores for interrupted studies

	2015		2016		Sequence requirement met	2016 study score
	Unit 3	Unit 4	Unit 3	Unit 4		
Interrupted Study	S	Overseas study/illness	Overseas study/illness	S	Yes	Yes

1.4 Interstate credit and study scores

A student awarded credit at Unit 3 and 4 level for interstate studies will have a study score calculated only if they have credit for Unit 3 and receive an S result for Unit 4 in a similar VCE study, and have attempted at least two graded assessments in the VCE study.

2 Statistical moderation

School-based Assessment is an important part of the VCE. In many studies it contributes 50 per cent towards the calculation of a student's study score. To ensure fairness when study scores are calculated, it is important that School-based Assessments made by all schools are comparable.

The VCE program gives teachers some flexibility in deciding which teaching and learning activities and coursework assessment tasks they will use to assess the learning outcomes specified in each study design. As a result, coursework assessment from different schools will sometimes be based on different sets of assessment activities, even though they are assessing the same learning outcomes, and therefore cannot be compared.

The VCAA acknowledges that teachers are best placed to measure students' academic achievement; however, measurements are only comparable when they are expressed on the same scale. It is important to remember that statistical moderation does not change the relative performance of students within the statistical moderation group. For each VCE and VCE VET program, the VCAA uses statistical moderation to express students' achievement from all schools on the same scale. This provides fairness for students across the state. To ensure comparability of assessment of School-based Assessment from different schools, the VCAA will apply statistical procedures to each moderation group, study by study.

For VCE studies, moderation groups are the cohort of students in each school undertaking the study, or the total cohort of students from schools that combine for the purposes of assessment and moderation for a particular study.

For VCE VET programs with scored assessment, the typical moderation group is the cohort of students enrolled with a specific registered training organisation (RTO) for the VCE VET program. In some circumstances schools may apply to the VCAA to be identified for statistical moderation purposes as the assessment provider.

Statistical moderation realigns the level and spread of each school's assessments of its students in a particular study, to match the level and spread of the same students' scores on a common external score. Because the external score is based on examinations done by all students across Victoria, it is a common standard against which school assessments can be compared.

Each VCE study includes at least one external assessment and the VCAA will use the external assessments in each study as the basis for statistical moderation of school assessments. In studies with two external assessments, scores from both will be used.

The VCE assessment program also includes the General Achievement Test (GAT). Rather than using examination scores alone, statistical moderation uses GAT and examination scores if they are a better match with school assessments throughout the state. In all such cases, the examination scores will always be the major influence. Further information on statistical moderation can be found on the [VCAA website](#).

Internal comparability of assessments

For statistical moderation, each school's assessments in a study are treated as a single group, not as separate teaching classes. Each school should have established procedures for making School-based Assessments and should apply these procedures consistently. There should be consistency of decisions made by teachers of individual studies and consistency of decisions made by multiple teachers of one study.

2.1 Small-group partnerships

Schools with moderation groups comprising fewer than five students, or schools that might expect such groups to occur as a result of circumstances arising during the year, are required to form partnerships with other schools of their own choosing, as early in the year as possible.

Schools with moderation groups that comprise five to nine students are encouraged to form partnerships, as students may withdraw during the year.

Formation of small-group partnerships

Schools with small groups must initiate the formation of the partnership and ensure that it operates effectively. If problems are encountered, contact Student Records and Results for advice.

It is preferable for a small group to combine with as large a group as possible, rather than combining with one or more other small groups. Partnerships involving more than three schools are not recommended unless necessary to achieve more than five students in the moderation group, because they are likely to present excessive organisational and workload difficulties for teachers and school administrators.

An important aspect of the successful implementation of the small-group partnership process is the level and consistency of interaction between schools. Schools may utilise any method of interaction that is appropriate. These include telephone, fax, post, email, face-to-face and video-conference meetings.

2.2 Transferring students: Assessment and moderation

For each transferring student, the VCAA will make a separate decision on how the student's School-based Assessment is moderated for each study. The decisions will be based on the following conditions.

Students who transfer very early in Term 1 and complete all assessment tasks at the receiving school

- The receiving school is the assessing school and the moderation group.
- The student's School-based Assessment scores and examination scores are treated in the usual way in the moderation process for the receiving school.

Students who transfer very late in Term 4, having completed all assessment tasks at the original school, but sit the examinations at the receiving school

- The original school remains the assessing school.
- The student's examination score is treated as belonging to the original school.
- The student's School-based Assessment scores and examination scores are treated normally in the moderation process for the original school.

Students who complete all the assessment tasks for Unit 3 at their original school and the assessment tasks for Unit 4 at their receiving school (in the study of English in this example)

- The student transfers at the end of Semester 1, having completed all assessment tasks for the Unit 3 School-based Assessment at the original school. The student completes all tasks for the Unit 4 School-based Assessment at the receiving school.
- The student's School-based Assessment will be handled as follows:
 - The original school is the assessing school for Unit 3 coursework.
 - The receiving school is the assessing school for Unit 4 coursework.
 - Because the student's School-based Assessment preparation for the examination has been completed at two different schools, the student's scores are removed from the moderation process for both schools.
 - At the completion of the moderation process for both schools, the student's moderated School-based Assessment score for Unit 3 will be calculated using the moderation parameters for the original school, and the moderated School-based Assessment score for Unit 4 will be calculated using the moderation parameters for the receiving school.

Students who complete some assessment tasks for the School-based Assessment at their original school and the remainder of the tasks at the receiving school**Example for Mathematics**

- The student transfers at the end of Semester 1, having completed the Unit 3 tasks of the Units 3 and 4 School-based Assessment at the original school.
- The student completes the Unit 4 tasks of the School-based Assessment at the receiving school.

Example for English

- The student transfers early in Term 2, having completed two of the three assessment tasks for the Unit 3 School-based Assessment at the original school.
- The student completes the remaining task for Unit 3 School-based Assessment at the receiving school.

In both examples the student's School-based Assessment will be handled as follows:

- The original school will enter the scores for the tasks assessed at that school on VASS prior to transferring the student to the receiving school.
- The receiving school will enter the scores for the tasks assessed at that school on VASS.
- The student's School-assessed Coursework and examination scores will be removed from the moderation process for both schools.
- At the completion of the moderation process for both schools, the VCAA will calculate a moderated 'partial' score for the School-assessed Coursework completed at the original school, using the moderation parameters for that school, and will also calculate a moderated 'partial' score for the School-assessed Coursework completed at the receiving school, using the moderation parameters for the receiving school.
- The moderated partial scores from each school will then be added to produce the moderated total score for the student.

If a student arrives at the receiving school having completed only some of the assessment tasks for the School-based Assessment, and those tasks have been done in a different sequence to that of the receiving school, the receiving school should provide support for the student to complete any missing tasks. This support should include the necessary teaching and preparation for the tasks, and scheduling of tasks for the student.

Schools should seek advice from the Manager, Student Records and Results, if they are unsure of appropriate measures to take in any of these situations.

2.3 Final grades

All VCE studies have three graded assessments for each Unit 3–4 sequence. Scored VCE VET studies have two graded assessments for each Unit 3–4 sequence.

Levels of performance in graded assessments are reported as A+ to E, UG (Ungraded) and NA (Not Assessed). UG indicates that the score achieved was too low to assign a grade. NA indicates that the School-based Assessment was not submitted or the examination was not undertaken.

All VCE studies include at least one external assessment, and all except Studio Arts have School-assessed Coursework for either a combined Unit 3 and 4 assessment, separate Unit 3 and Unit 4 assessments, or a Unit 3 assessment only. Some studies have School-assessed Tasks; Music Style and Composition and Extended Investigation have an Externally-assessed Task.

[Performance in Senior Secondary Certificate Assessment](#), which includes distribution of grade ranges for all assessment components in each study, is published on the VCAA website.

2.4 Final grades for VCE and VCE VET School-based Assessment

The minimum score required for each grade for each School-based Assessment in a VCE study and a VCE VET scored program is determined by the VCAA following statistical moderation of schools' initial scores.

2.5 Final grades for VCE external assessments

The minimum score for each grade is determined by the VCAA at the completion of marking.

