

# TERTIARY INSTITUTIONS SERVICE CENTRE

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## 2011 SCALING INFORMATION SHEET

The purpose of this sheet is to help you understand some of the outcomes from the 2011 marks adjustment (scaling) process.

In 2011 there were 105 course stages examined, including 11 language courses using interstate syllabi and two WACE courses, Aviation and Marine and Maritime Studies, examined at stage 3 only.

The main steps in the marks adjustment process are:

The Curriculum Council moderates and standardises school assessments and standardises exam results, then combines the school assessment and exam results to produce combined marks for each course unit pair studied.

TISC and the Curriculum Council jointly

- Scale stage 2 and stage 3 combined marks (preliminary scaling) to put them on to a common scale so increments can be added
- Add increments, where appropriate, to stage 3 results (also to Mathematics 2C/2D, 3A/3B, 3C/3D and Mathematics: Specialist 3C/3D)
- Combine stage 2 and 3 results within a course to produce a distribution of course results
- Scale the courses to produce scaled scores (final scaling)

Full details of the marks adjustment process are at

<http://www.tisc.edu.au/static-fixed/statistics/misc/2010-03-marks-adjustment-process-for-uni-adm.pdf>

- The purpose of scaling is to rank students for university admissions. It ensures that students are not advantaged or disadvantaged on the basis of the courses they do in Year 12. That is, a scaled score of 55 in stage 3 Literature is comparable to 55 in stage 2 Biological Science or 55 in Mathematics 3A/3B etc.
- Within each course, stage 2 is less academically demanding than stage 3, hence the completion of courses at stage 3 provides a better preparation for university studies. Universities have encouraged students seeking university admission to undertake studies at stage 3 by providing a 15 mark increment added to final combined marks before scaling. In the case of Mathematics the increment is 10 marks between each of the four unit pairs.
- Once the final scaling has been completed, the average of all scaled scores across all courses is 60.
- In the final scaling, stage 2 and stage 3 are not scaled separately. For example, a 2011 English final combined mark of 60.59 is scaled to 50, regardless of whether it is from stage 2 or stage 3.
- A comparison of average scaled scores between 2010 and 2011 courses shows the 2011 averages are similar to 2010.
- Within a course, the average of stage 2 and of stage 3 scaled scores is different. Approximately 13 marks of the difference between stage 2 and stage 3 scaled score averages is due to the increment of 15. The rest of the difference is attributable to the difference in ability of the students in each stage.

- Movement from Stage 2 to Stage 3

When comparing 2010 and 2011 figures, there appears to be a move from stage 2 to stage 3. In 2011 there 32 courses where there are fewer students with stage 2 scaled scores and more students with stage 3 scaled scores than in 2010. Significant movement from stage 2 to stage 3 has occurred in Chemistry, Design, English, Geography, Human Biological Science, Literature, Modern History, Physical Education Studies and Religion and Life. See comment on ATARs below.

- Mathematics: Specialist

The difference in average scaled scores in Mathematics: Specialist 3A/3B and 3C/3D reflects the difference in ability between the students, as well as the increment. Even though it is designated a stage 3 unit pair, Mathematics: Specialist 3A/3B is the lower unit pair of Mathematics: Specialist, in the same way as Physics 2A/2B is the lower unit pair of Physics.

- Mathematics

Mathematics is scaled with an increment of 10 between each of the four unit pairs 2A/2B, 2C/2D, 3A/3B, 3C/3D, ie 0 for 2A/2B, 10 for 2C/2D, 20 for 3A/3B and 30 for 3C/3D.

Mathematics is unique among WACE courses in having four unit pairs (2AB, 2CD, 3AB, 3CD) that are separately examined. Also, of all students who sat four or more WACE examinations, ie the scaling population, most did Mathematics (11,922). This meant that the AMS process produced a Mathematics scaled score of 59.8 and a standard deviation of 13, similar to the overall AMS scaling parameters of 60 and 13 respectively.

The AMS process had to deal with four unit pairs, instead of two as for all other courses. Due to its large candidature, Mathematics is the archetypal 'average' course. These facts together meant that the theoretical highest possible scaled score in Mathematics was constrained to be less than 100, regardless of the ability of the Mathematics candidates at the top end. (In the preliminary scaling Mathematics 3CD scaled to 100.)

Therefore, the 2011 Mathematics AMS output was adjusted to correct this anomaly as was done in 2010.

- English at stage 2 and University competence in English requirement

15% of English stage 2 students achieved a scaled score of at least 50, the normal requirement to achieve competence in English for university admission.

However, for a number of years the universities have also considered students' standardised exam or standardised moderated school assessments in determining competence in English, for those students whose scaled score is less than 50. Currently the standardised mark required is at least 55 for Curtin, ECU and Murdoch and 60 for UWA. The standardisation parameters (mean 60, standard deviation 14) mean at least 65% (50% for UWA) of English stage 2 students achieve university competence in English.

Overall, 88% or 10,205 (10,012 for UWA) students who have applied for university have achieved university competence in English: 2,423 from stage 2; and 7,782 from stage 3.

University applicants who have not achieved competence in English are usually invited to sit the Special Tertiary Admissions Test (STAT) to demonstrate their competence in English.

- ATAR

12,288 school leavers achieved an ATAR in 2011 compared to 12,264 in 2010.

In 2011, 7,883 students achieved an ATAR using four stage 3 scaled scores compared with 6,795 in 2010.

23.9% of school leavers achieved an ATAR greater than 90

46.7% of school leavers achieved an ATAR greater than 80

66.7% of school leavers achieved an ATAR greater than 70

81.9% of school leavers achieved an ATAR greater than 60

87.5% of school leavers achieved an ATAR greater than 55

- Selection Rank

From 2011, Curtin and UWA have introduced a LOTE bonus for students with a 2011 scaled score in a language other than English. The LOTE bonus is 10% of their LOTE scaled score which is added to the student's Tertiary Entrance Aggregate (TEA) then converted to a Selection Rank using the TEA to ATAR conversion table.

More facts on the marks adjustment process, 2011 scaled scores and ATAR distributions and courses used are at [www.tisc.edu.au](http://www.tisc.edu.au), under Publications, Reports and Statistics.