

## 2019 Scaling Report

VCAA provides VTAC with study scores (relative positions). These study scores are scaled in order to calculate scaled aggregates and Australian Tertiary Admission Ranks (ATARs). Candidates are in the 2019 scaling population if, excluding small studies, they have obtained at least one VCAA study score in 2019, at least four in total, at least one in an English study [English, English (EAL), English Language or Literature], but do not already have an ATAR. The scaling population is therefore a subset of the entire population. The means and standard deviations below pertain to the scaling population in 2019.

The following table gives the 2019 scaled means and standard deviations as well as the VTAC scaled study scores (rounded to the nearest integer) corresponding to the study scores of 20, 25, 30, 35, 40, 45 and 50. The formal aggregation process uses VTAC scaled study scores to two decimal places, but the following information gives an indication of how scaling adjusts scores in the various studies.

Code	2019 Study	Mean	St. Dev.	20	25	30	35	40	45	50
AC	Accounting	30.3	7.4	19	25	30	36	41	46	50
AH	Agricultural & Horticultural Studies	25.1	6.7	14	18	23	28	34	41	50
AL03	Algorithmics (HESS)	36.3	7.0	24	31	38	42	46	49	50
AT	Art	27.3	7.4	15	20	26	32	38	45	50
BI	Biology	30.4	7.3	20	25	30	36	41	46	50
BM	Business Management	26.9	7.3	16	21	26	32	38	44	50
CH	Chemistry	33.7	7.2	22	28	34	39	44	47	50
CC	Classical Studies	29.9	7.5	18	24	30	35	41	46	50
<b>Computing:</b>										
IT02	Informatics	26.0	6.7	15	20	25	30	36	42	50
IT03	Software Development	28.3	7.1	16	21	27	33	39	45	50
DA	Dance	28.7	7.2	19	23	29	34	39	44	50
DR	Drama	27.6	7.4	17	22	27	33	38	44	50
EC	Economics	32.0	7.2	21	27	32	37	42	47	50
EN	English	28.1	7.5	17	22	28	33	39	45	50
EF	English (EAL)	28.8	8.1	17	23	29	35	41	46	50
EG	English Language	32.4	7.2	22	27	33	38	42	47	50
EV	Environmental Science	27.9	7.1	17	22	28	33	39	44	50
XI03	Extended Investigation	31.6	7.4	20	26	31	37	42	46	50
FT	Food Studies	23.9	7.3	14	18	23	29	35	42	50
GE	Geography	28.8	7.1	18	23	28	34	39	45	50
HH	Health and Human Development	26.3	7.3	16	21	26	31	37	43	50
<b>History:</b>										
HI17	Ancient History	28.0	8.5	16	22	28	35	41	46	50
HA	Australian History	28.7	7.4	18	23	28	34	39	45	50
HR	Revolutions	28.9	7.8	17	23	29	34	40	46	50
IE	Industry and Enterprise	23.0	7.9	10	14	20	26	33	42	50
<b>Languages:</b>										
AR	Arabic	31.1	6.8	19	25	30	35	40	45	50
AM	Armenian			Small Study or no candidates, see Note below						
AU	Auslan	28.8	7.3	17	23	29	34	40	45	50
LO50	Bosnian			Small Study or no candidates, see Note below						
LO53	Chin Hakha	31.2	6.1	20	24	27	31	36	41	50
CN	Chinese First Language	34.5	8.0	21	28	34	40	45	49	50
LO57	Chinese Language Culture and Society	31.9	7.1	21	27	33	38	43	47	50
CK	Chinese Second Language Advanced	37.9	7.6	25	32	38	44	48	51	53
CL	Chinese Second Language	39.9	6.7	30	36	41	45	49	51	53
AG	Classical Greek	35.3	7.0	27	32	37	41	45	48	50
LO51	Classical Hebrew			Small Study or no candidates, see Note below						
CR	Croatian	32.0	8.4	17	23	30	36	42	47	50
DU	Dutch			Small Study or no candidates, see Note below						
FP	Filipino	33.3	6.1	22	26	30	34	38	43	50
FR	French	40.1	6.7	29	36	41	45	49	52	53
GN	German	38.7	6.6	28	34	39	44	47	50	52
MG	Greek	34.6	6.7	24	30	35	39	44	47	50
HB	Hebrew	40.6	7.3	30	38	44	49	52	54	55
HI	Hindi	35.9	8.9	22	29	37	43	48	52	54
HU	Hungarian			Small Study or no candidates, see Note below						
AI	Indigenous Languages			Small Study or no candidates, see Note below						
IN	Indonesian First Language			Small Study or no candidates, see Note below						
IX	Indonesian Second Language	36.0	6.8	25	31	37	41	45	48	50
IL	Italian	35.7	6.3	26	31	36	41	44	47	50
JA	Japanese First Language			Small Study or no candidates, see Note below						
JS	Japanese Second Language	37.4	6.8	27	33	38	43	46	49	51
LO55	Karen			Small Study or no candidates, see Note below						
KH	Khmer	30.0	7.6	18	24	30	36	41	46	50
KO	Korean First Language			Small Study or no candidates, see Note below						
KS	Korean Second Language	38.4	6.7	30	36	40	44	47	50	52

Code	2019 Study	Mean	St. Dev.	20	25	30	35	40	45	50
LA	Latin	45.0	6.9	34	41	46	50	53	54	55
MA	Macedonian	32.4	5.8	23	27	31	35	40	44	50
ML	Maltese			Small Study or no candidates, see Note below						
PN	Persian	28.7	7.4	18	23	28	33	39	44	50
PO	Polish	34.4	5.8	22	28	33	38	43	47	50
PG	Portuguese	30.6	6.7	21	25	29	33	38	43	50
LO49	Punjabi	32.0	6.2	22	27	32	37	41	46	50
RO	Romanian			Small Study or no candidates, see Note below						
RU	Russian	36.2	6.9	27	33	39	43	46	49	50
SE	Serbian	31.1	5.7	20	27	34	40	45	48	50
SI	Sinhala	36.1	6.4	27	32	35	39	42	46	50
SP	Spanish	36.0	6.7	22	30	38	43	47	49	50
SW	Swedish			Small Study or no candidates, see Note below						
TA	Tamil			Small Study or no candidates, see Note below						
TU	Turkish	29.4	7.2	19	23	28	32	37	43	50
LO54	Vietnamese First Language	32.9	6.8	22	27	33	37	42	46	50
VT	Vietnamese Second Language	35.5	6.9	24	30	36	40	44	48	50
LO52	Yiddish			Small Study or no candidates, see Note below						
	<b>All small LOTES</b>			24	30	35	40	44	48	51
LS	Legal Studies	28.3	7.6	17	22	28	34	39	45	50
LI	Literature	31.2	7.3	20	26	31	36	41	46	50
	<b>Mathematics:</b>									
NF	Further Mathematics	27.8	7.1	18	23	27	33	38	44	50
NJ	Mathematical Methods	33.7	8.4	21	28	34	40	45	49	50
NS	Specialist Mathematics	40.1	8.3	27	34	41	47	51	54	55
ME	Media	26.6	7.3	15	20	25	31	37	44	50
	<b>Music:</b>									
MC05	Music Investigation	30.4	7.1	21	25	29	33	37	42	50
MC04	Music Performance	29.6	7.2	19	24	29	35	40	45	50
MD	Music Style and Composition	31.3	7.2	19	25	30	36	41	46	50
OS	Outdoor and Environmental Studies	24.9	7.1	15	19	24	29	35	42	50
PL	Philosophy	29.8	7.7	18	24	30	35	41	46	50
PE	Physical Education	27.3	7.3	17	22	27	32	38	44	50
PH	Physics	32.0	7.4	21	26	32	38	42	47	50
	<b>Politics:</b>									
PS03	Australian Politics	31.8	7.5	20	26	32	38	43	47	50
PS05	Global Politics	31.9	7.5	20	26	32	37	42	47	50
DT	Product Design and Technology	24.5	7.0	12	17	22	28	35	42	50
PY	Psychology	28.4	7.3	18	23	28	34	39	45	50
RS	Religion and Society	29.3	7.3	18	23	28	34	39	45	50
SO03	Sociology	24.8	7.7	14	19	24	30	37	44	50
SA	Studio Arts	26.2	7.5	14	19	25	31	37	44	50
SE03	Systems Engineering	26.3	6.6	15	20	25	30	36	42	50
TT	Texts and Traditions	30.4	7.0	20	25	30	35	40	45	50
TS	Theatre Studies	29.0	7.2	19	24	29	34	39	45	50
VC	Visual Communication Design	27.0	7.0	16	20	26	32	38	44	50
	<b>VCE VET:</b>									
BU23	VCE VET Business	24.5	7.2	14	18	23	29	35	42	50
CT41	VCE VET Community Services	23.7	6.5	14	18	23	28	34	41	50
MU07	VCE VET Creative and Digital Media	25.9	6.8	16	20	25	30	35	42	50
DN06	VCE VET Dance	27.6	6.4	19	22	26	30	35	41	50
EG16	VCE VET Engineering Studies	24.2	6.2	15	19	23	28	34	41	50
EQ05	VCE VET Equine Studies	28.2	7.0	17	22	27	32	38	43	50
FN19	VCE VET Furnishing	24.4	5.4	19	22	26	30	35	41	50
CT37	VCE VET Health Services	24.9	7.1	14	19	24	29	35	42	50
HS31	VCE VET Hospitality	25.6	7.1	15	20	25	30	36	43	50
HS32	VCE VET Hospitality (Kitchen Operations)	24.9	6.7	15	19	24	28	34	41	50
IN60	VCE VET Information Technology	25.0	5.8	18	22	25	30	35	40	50
ET16	VCE VET Integrated Technologies	22.2	5.9	16	20	24	29	34	40	50
LB21	VCE VET Laboratory Skills	29.3	6.4	19	24	28	33	38	43	50
MI19	VCE VET Music Performance	26.6	6.3	17	21	26	30	35	41	50
MI30	VCE VET Music Sound Production	26.3	6.2	17	21	25	30	35	41	50
SR41	VCE VET Sport and Recreation	23.9	6.8	14	18	23	28	33	40	50

**Note:** Small LOTE (Languages Other Than English) studies were not scaled by the automatic procedure, since their eligible scaling population was less than or equal to ten. The means and standard deviations are not given in these cases, since they are not as useful. For small VCE Languages, the Language adjustment is the maximum of zero and the average Language adjustment over the previous three years. The ATAR Scaled Scores for small VCE Languages in 2019 are shown at the end of the Languages section of the above table under the title "All small LOTES".

## 2019 Scaled Aggregate to ATAR Table

Based on the 2019 scaling and aggregation process, the following table gives an indication of the minimum scaled aggregate required to achieve at least a particular ATAR. The table can be used to check roughly an ATAR calculation.

2019 ATAR	Minimum Scaled 2019 Aggregate for ATAR
40.00	84.72
45.00	91.38
50.00	97.83
55.00	103.98
60.00	110.36
62.00	112.94
64.00	115.42
65.00	116.64
66.00	117.95
68.00	120.62
70.00	123.38
72.00	126.07
74.00	128.89
75.00	130.36
76.00	131.79
78.00	134.84
80.00	137.83
82.00	141.17
84.00	144.46
85.00	146.38
86.00	148.38
88.00	152.35
90.00	156.80
91.00	159.24
92.00	161.67
93.00	164.41
94.00	167.40
95.00	170.65
96.00	174.14
97.00	178.58
97.50	181.15
98.00	184.04
98.50	187.48
99.00	191.95
99.25	194.79
99.50	197.98
99.60	199.71
99.70	201.52
99.80	203.76
99.90	207.39