

HSC Results 2015



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HSC Participation

Year	HSC Total	HSC Completed	At Least one HSC Course
2015	76461	68015	8446
2014	75767	68004	7763
2013	74277	66841	7436
2012	72473	66590	5883
2011	71443	66125	5318
Acceleration and pathways students	7%	2.86%	Up 58.82% since 2011

HSC Results Analysis

Total Number of Band 6/E₄s

Year	School Band 6	State Band 6	Students Awarded Band 6	State Percent Band 6 v all Bands	State Band 6 per B6 Student	School Band 6 Per SBHS Student
2015	709	35975	16568	10.5	2.17	3.39
2014	641	35982	16485	10.5	2.18	3.13
2013	585	34684	15949	10.1	2.17	2.93
2012	592	35055	15940	10.2	2.19	2.87
2011	690	36135	16412	10.5	2.2	3.33

Band 6 Movements

Year	State Band 6 Growth %	School Band 6 Growth %
2015	-0.001	+10.61
2014	+3.7	+9.6
2013	-1.05	-1.8
2012	-3	-14.2
2011	-2.6	+17.9

Mean Score of SBHS Students in HSC Courses With Ten or More Students

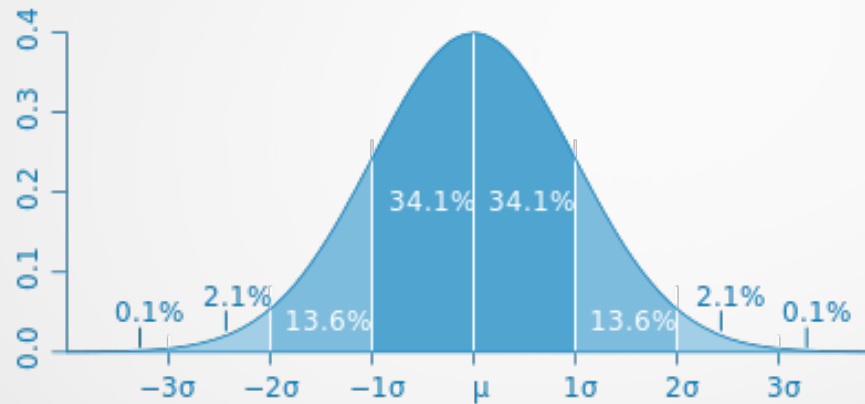
Course	School 2015	School Average 2011-2105	SSG 2015 (Selective Schools)	State DoE 2015
Biology	84.5	83.7	84.4	69.5
Business Studies	92.2	90.4	86.1	71.1
Chemistry	89.1	88.6	84.9	75.5
Economics	84.1	85.2	83.6	76.0
Engineering Studies	87.3	88.0	86.7	75.2
English (Advanced)	88.1	87.7	86.3	80.1
English Extension 1	90.8	89.7	88.0	84.1
Geography	88.1	88.2	85.0	69.6
Legal Studies	88.0	89.3	86.9	72.3

Mean Score of Students in HSC Courses With Ten or More Students (cont.)

Course	School 2015	School Average 2011-2105	SSG 2015 (Selective Schools)	State DoE 2015
Mathematics	91.4	89.7	87.5	77.1
Mathematics Extension 1	93.0	90.1	89.1	82.3
Mathematics Extension 2	91.4	89.5	88.5	83.4
Modern History	90.0	88.4	87.3	72.5
History Extension	83.3	84.0	87.0	77.1
Music 2	88.9	90.7	90.3	86.9
Physics	87.1	86.4	83.3	72.1
Senior Science	85.4	87.8	83.9	69.2
Software Design and Development	90.9	88.0	86.3	72.1
Studies of Religion II	79.8	81.9	81.5	65.8

Explanation of Terms

Standard deviation



- Standard deviation (σ) shows how much variation or dispersion from the average (mean) exists. Each band has a width of one standard deviation.
- The mean is the sum of all the numbers in the set (candidates scores in an HSC course), divided by the amount of numbers in the set (number of candidates).

Explanation of Terms (cont.)

Z score:

A z score for an HSC course is the school mean minus the state mean divided by the state standard deviation.

Assume a normal curve distribution. Let's say the state HSC mean for a course is 74 and its standard deviation is 12. At High the course mean is 86. The calculated z-score is $(86 - 74) / 12 = 1$.

There are 15.9% of candidates left after the first standard deviation above the mean. As it happens, about 16.3% of students who apply are awarded an ATAR of 90 or more.

NB The distribution for TES purposes is not normal.

Top 20 Z Scores

Design & Technology 2 unit	1.64	Legal Studies 2 unit	1.07
Business Studies 2 unit	1.46	Biology 2 unit	1.03
Software Design/Devel.	1.44	Geography 2 unit	1.03
Personal Development	1.3	German Continuers 2 unit	1.02
Ancient History 2 unit	1.27	Senior Science 2 unit	1
Chemistry 2 unit	1.15	Mathematics 2 unit	0.95
Physics 2 unit	1.11	Chinese Continuers 2 unit	0.86
Modern History 2 unit	1.1	English (Advanced) 2 unit	0.86
Engineering Studies 2 unit	1.09	French Continuers 2 unit	0.86
Visual Arts 2 unit	1.09	Mathematics Extension 1 2 unit	0.85
Studies of Religion 1 unit	1.08		

Explanation of Terms (cont.)

The school mean ATAR unit value:

The school mean ATAR unit value is calculated as the school per unit HSC mean, minus the state per unit HSC mean, divided by the state per unit HSC standard deviation, multiplied by the ATAR per unit standard deviation; the result being added to the state ATAR mean unit scaled value.

English Advanced HSC mean unit value was 43.83. The HSC mean was 40.4 with a standard deviation of 4.1. The ATAR SD was 8 and the scaled mean 32 per unit.
 $(43.83 - 40.4) / 4 \times 8 + 32 = 38.89$.

At High the English Advanced mean unit scaled value was 38.89.

The Z-score was- $(43.83 - 40.4) / 4.1 = 0.84$ [n=206].

What Does ATAR Unit Value Mean?

The ATAR unit value is the score the average SBHS student received in a course as a calculation towards an ATAR. The best ten scaled units (including 2 English) are aggregated to arrive at a TES and ATAR.

99.95	= 10 units	@	47.7
99.5	= 10 units	@	45.6
99.0	= 10 units	@	44.6
98.0	= 10 units	@	43.2
97.0	= 10 units	@	42.3
96.0	= 10 units	@	41.1
95.0	= 10 units	@	40.4
94.0	= 10 units	@	39.5
93.0	= 10 units	@	38.7
92.0	= 10 units	@	38.06
91.0	= 10 units	@	37.58
90.0	= 10 units	@	36.76

Targets for HSC 2015

- Earn 625 band 6 /E4 awards (achieved 709)
- Have >160 boys @ ≥ 90 (achieved 173)
- More than 50 @ 99 or above (achieved 54);
75 (95-98.95) 80; 40 (90-94.95) (39)
- Reach ATAR average of > 93.5 (achieved 94.27)
- Produce 76.5% of ATARs @ 90 (achieved 83.09%)
- Reduce ATARs <80 to 7.75% (achieved 5.77 %)

Reported or Calculated ATARs

Year	Year 12	Average ATAR	Standard Deviation
2010	191	92.98	9.32
2011	207	94.57	6.84
2012	206	92.65	9.33
2013	200	93.17	7.39
2014	204	93.72	8.16
2015	207	94.29	7.48

5 Year ATAR History

Year	Yr. 12	99+	95- 98	90- 94+	> =90	85- 89	80- 84	<80
2011	207	57	80	33	83.09	16	9	12
2012	206	49	70	37	75.73	22	9	19
2013	200	37	74	45	78.39	15	13	16
2014	204	55	74	36	80.88	13	10	16
2015	207	54	79	39	83.09	14	9	12

ATAR Value Per Course N>10

Course	Candidature No. in top1%	HSC Mark	90th % Mark	ATAR Value
Mathematics ext 2	33	49	47	47.3
Mathematics ext 1	90	49.5	47.5	46.5
English extension 1	48	48	47	44.1
Music 2	6	49	47.5	43.9
Economics	50	47.5	45	43.5
Chemistry	109	46.5	45	43.1
Mathematics	164	49	46.5	42.5
History extension	18	49	46	42.3
English Advanced	260	47.5	45.5	42.3
Physics	95	47.5	44	42.3

ATAR Value Per Course ≥ 10

Course	Candidature No. in top 1%	+ Mark	90 th % Mark	ATAR Value
Modern History	110	47	45	39.9
Studies of Religion 2	54	47	44	39.6
Legal Studies	102	47.5	45	39.1
Business Studies	165	47	44.5	38.3
Software Design	17	48	44	38
Biology	172	46.5	43.5	39.2
Senior Science	63	47.5	44	33.3

Mean ATAR Value Per Course N>=10

Course	High Mean Unit Value	Difference from 90 ATAR 36.7
Mathematics ext 2	45.49	8.79
Mathematics ext 1	43.48	6.78
Chemistry	42.43	5.73
English Extension 1	41.8	5.1
Physics	41.18	4.48
Mathematics	40.54	3.84
Business Studies	39.77	3.07
Software Design	39.10	2.4

Mean ATAR Value Per Course N>=10

Course	High Mean Unit Value	Difference from 90 ATAR 36.7
Economics	37.96	1.26
English Advanced	38.89	2.19
Modern History	38.51	1.81
Studies of Religion 2U	36.95	+0.25
History Extension	36.68	+0.01
Legal Studies	36.60	-0.07
Senior Science	28.83	-7.87

Mean ATAR Value Per Course N<10

Course	High Mean Unit Value	Difference from 90 ATAR 36.7
Latin Extension	43.49	6.79
German Continuers	43.1	6.4
French Continuers	42.29	5.59
Chinese Continuers	41.62	4.92
Latin Continuers	40.1	3.4

2015	Course No. in State	State mean per unit HSC	School mean per unit	HSC unit SD	ATAR Unit value	ATAR SD	School		No. in SBHS	HSC 99th %	ATAR 99th %	HSC 90th %	ATAR 90th %	HSC 75th %	ATAR 75th %
			Exam		Scld.		ATAR unit value	Z Score							
English	26002	40.4	43.83	4.1	32.2	8.0	38.89	0.84	206	47.5	46.7	45.5	42.3	43.5	38.2
	28066	40.5	44.4	3.3	33.2	7.6	40.28	0.99	210	47.5	47.9	45.5	42.8	43.5	38.9
Ext. 1	4848	41.6	45.21	4.40	36.30	6.70	41.80	0.82	42	49	48	47	44.1	45	41.3
	6282	41.6	45.2	4.4	38.4	5.9	41.92	0.92	96	49	49.1	47	46.4	45.4	43.9
Drama	4593	39.1	39.48	4.7	23.8	10.5	24.65	0.08	4	48	45.8	45.5	38.5	42.5	31.7
	5134	39.2	42.06	4.4	24.3	10.1	32.49	0.8	11	48	46.1	45.5	39	42.5	32
Maths	16450	39.2	45.52	6.7	31.2	9.9	40.54	0.94	166	49	47.6	46.5	42.9	44	38.6
	20799	39.4	45.52	6.2	31.2	6	40.54	1.02	187	49	47.6	47	42.9	44	39.1
Ext 1	9022	40.80	44.89	6.30	39.20	6.60	43.48	0.65	162	49.5	49.1	47.5	46.5	45.5	44
	9955	41	44.89	6.30	40.1	6	44	0.66	184	49.5	49.5	48	48	46	45.6
Ext 2	3371	41	44.28	5.8	43	4.4	45.49	0.57	117	49	49	47.0	47.3	45.5	45.9
	3512	41.9	44.8	5.4	44.7	4.4	46.71	0.59	123	49	49.7	47.5	49.2	46.1	48.5

2015	Course No. in State	State mean per unit HSC	School mean per unit	HSC unit SD	ATAR Unit value	ATAR SD	School		No. in SBHS	HSC 99th %	ATAR 99th %	HSC 90th %	ATAR 90th %	HSC 75th %	ATAR 75th %
			Exam		Scld.		ATAR unit value	Z Score							
Biology	17269	35.8	42.21	6.3	26.5	10.0	36.67	1.02	33	46.5	45.1	43.50	39.2	40.50	34.1
	17269	37.2	43.53	4.9	26.9	9.3	36.95	1.07	36	47.5	45.5	44.50	39.7	41.50	34.6
Chemist.	10905	38.1	44.42	5.6	31.6	9.7	42.43	1.13	106	47.5	47.1	45.00	43.1	42.5	39.2
	11173	38.3	44.71	5.6	31.8	9.2	42.43	1.05	110	48	47.3	45.50	43.1	43	39.2
Physics	9510	36.5	43.43	6.3	30.4	9.8	41.18	1.10	111	47.5	47	44	42.3	40.5	38.1
	10158	37.8	43.43	5.4	30.7	9.2	41.18	1.11	129	47.5	47	45	42.4	42.5	38.2
Sen.Sci	6320	35.9	42.62	6.7	18.7	10.1	28.83	1.00	15	47.5	41	44	33.3	41	26.3
	6328	37.7	45.5	5.6	19.2	10.2	32.75	1.32	21	48	41.6	44.5	33.8	42	27.1

Target Mean v Achieved Mean: n=>100

Advanced English	[n=206]	87.5	87.66
Maths Extension 1	[n=163]	92.60	90.25
Mathematics	[n= 166]	90.14	89.5
Maths Extension 2	[n= 116]	91.17	90.25
Physics	[n= 111]	86.86	87.5
Chemistry	[n= 106]	88.83	88.75

Targets Against Results 2015

Course	Target Mean	Mean Achieved
Ancient History	85.25	90.11
Biology	85	84.4
Business Studies	89	91.8
Chemistry	88.75	88.83
Economics	86.5	83.75
Engineering Studies	88.75	86.80
English Advanced	87.5	87.66
English Extension	90.25	90.20
Geography	86.5	87.77
Legal Studies	89.15	87.87

Targets Against Results 2015

Course	Target Mean	Mean Achieved
Mathematics 2U	89.50	91.04
Mathematics Extension 1	90.25	92.60
Mathematics Extension 2	88.55	91.17
Modern History	87.80	89.80
History Extension	86.50	82.66
Physics	87.50	86
Senior Science	88.25	85.23
Software Design / Development	88.60	90.60
Studies of Religion II	85	78.93

Targets Against Results 2015

Course	Target % B6/E4	Achieved % B6/E4
Ancient History	35	57
Biology	25	15
Business Studies	80	77
Chemistry	57	51.88
Economics	35	23.94
Engineering Studies	79	41.66
English Advanced	42.5	49.51
English Extension	79	70.37
Geography	35	46.15
Legal Studies	65	52.38

Targets Against Results 2015

Course	Target % B6/E4	Achieved % B6/E4
Mathematics 2U	74.5	72.89
Mathematics Extension 1	71.7.5	79.75
Mathematics Extension 2	72.41	70
Modern History	55.9	61.9
History Extension	58	45.45
Physics	42	45.04
Studies of Religion -2U	25	0
Senior Science	48	33.33
Software Design	33.33	75

Targets Against Results 2015

Course	Target % B6/E4	Achieved % B6/E4
Drama	25	0
Music 1	48	100
Music 2	50	43.75
Music extension	75	100
Visual Arts	48	60
Chinese Continuers	80	100
Chinese Extension	100	100

Targets Against Results 2015

Course	Target % B6/E4	Achieved % B6/E4
German Continuers	50	66.66
German extension	43.5	0
Latin Continuers	50	50
Latin extension	50	100

Courses where targets - band 6 / E4 % met = 17

Courses where targets not met = 16

Where our Students Go

All 205 boys were offered university places.

Destinations	2011	2012	2013	2014	2015
UNSW	100	124	117	124	145
Sydney	62	42	47	41	25
UTS	13	7	13	10	3
Macquarie	13	8	6	10	6
ANU	4	9	3	8	7
UWS	7	8	8	4	8
Newcastle	0	1	2	2	0
Other	8	7	4	6	9

What Courses Do They Do?

Course	2011	2012	2013	2014	2015
Engineering	47	34	48	36	39
Commerce	45	49	50	65	64
Law	30	27	17	29	24
Arts	7	13	12	10	5
Science	19	28	18	12	11
Health Sciences	30	41	38	39	46
Design	3	3	3	2	0
Communication	5	6	0	0	3
International Studies	3	1	6	4	1
IT / Systems	3	1	5	1	6
Education	1	2	0	2	0

