

Course Placement Service Report



SOUTHERN ARKANSAS UNIVERSITY (0142)
Magnolia, AR

Placement Group: IN-STATE

Subject Area: Mathematics

Data Cohort: 20142015

Date of Report: August 10, 2016

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Course Placement Report

Information for Making Placement Decisions

Placement Group: IN-STATE

Summary of Placement Variables

This table summarizes the placement variables used in requested analyses for each reference course. The table shows number of students, mean value, and standard deviation.

The descriptive statistics for course completers are based on students who receive A-F grades. However, if you chose to treat W grades as unsuccessful outcomes, the statistics will also include students with W grades.

		IN-STATE			Students who completed course		
Reference course	Placement variable	N	Mean	SD	N	Mean	SD
CLG ALG/MTH LITERA	ACT Mathematics Score	479	20.2	4.2	176	19.6	3.3
	High School Mathematics Grade Average	425	3.2	0.7	156	3.1	0.7
	ACT Mathematics Score and High School Mathematics Grade Average	425	20.3 3.2	4.1 0.7	156	19.6 3.1	3.2 0.7

Summary of Course Outcomes

This table summarizes the course outcomes used in requested analyses for each reference course.

The table shows number of students, mean course grade, standard deviation, percent B or higher, percent C or higher, total of just W and I grades, and W grades not treated as successful.

		Grades used in analysis						
Reference course	Placement variable	N	Mean	SD	Percent B or higher	Percent C or higher	Total of W and I grades	W grades treated as not successful
CLG ALG/MTH LITERA	ACT Mathematics Score	176	2.5	1.2	61	78	3	Yes
	High School Mathematics Grade Average	156	2.5	1.2	62	80	2	Yes
	ACT Mathematics Score and High School Mathematics Grade Average	156	2.5	1.2	62	80	2	Yes

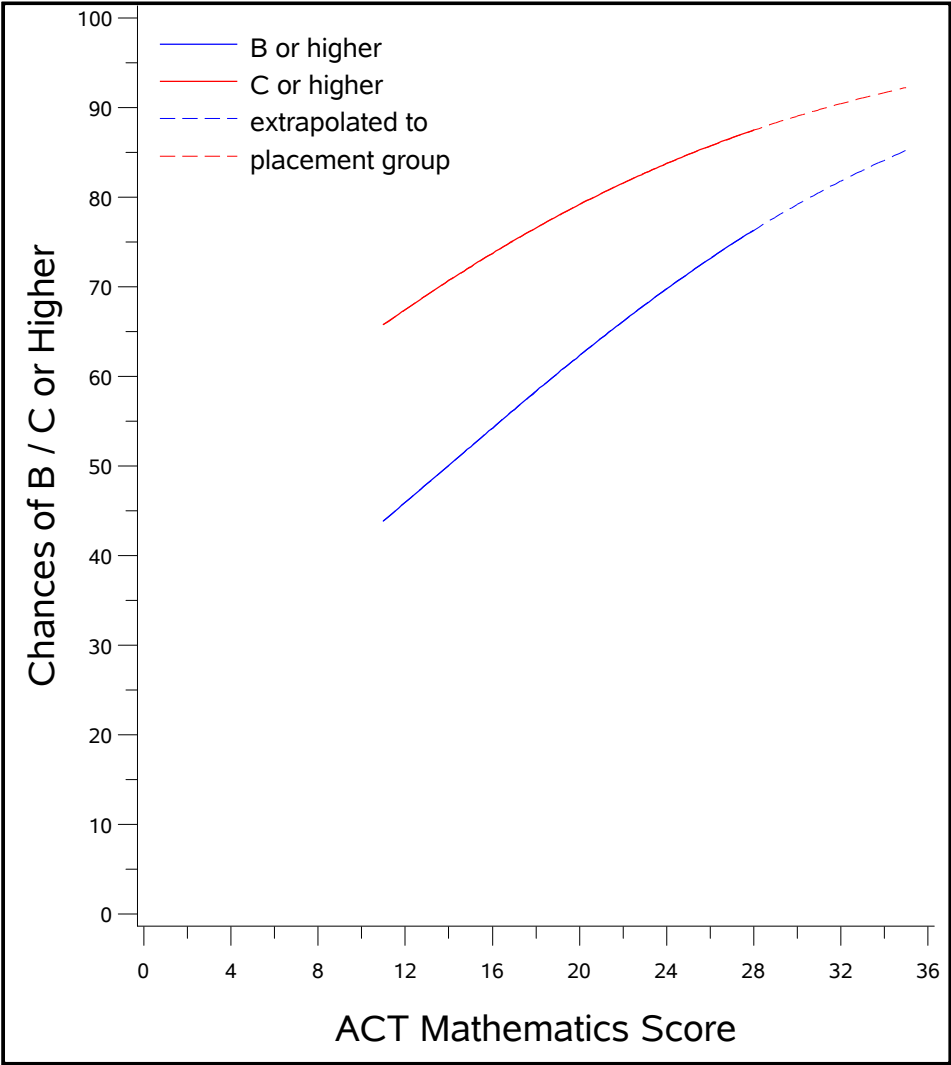
This table and graph report students' chances of achieving a B / C or higher in CLG ALG/MTH LITERA, given their ACT Mathematics Score. For example, the chance that a student with an ACT Mathematics Score of 23 would obtain a B or higher in CLG ALG/MTH LITERA is 68%.

If present, the boldface scores labeled as Opt. B and Opt. C in the table show the cutoff scores that are associated with the maximum accuracy rate. The information in the table and graph can be used to advise students about their chances of success in CLG ALG/MTH LITERA.

Chance of Success in CLG ALG/MTH LITERA,
Given ACT Mathematics Score

ACT Mathematics Score		Chance of success (B or higher)	Chance of success (C or higher)
	35	85	92
	33	83	91
	32	82	90
	31	81	90
	30	79	89
	29	78	88
	28	76	87
	27	75	87
	26	73	86
	25	72	85
	24	70	84
	23	68	83
	22	66	82
	21	64	80
	20	62	79
	19	60	78
	18	58	77
	17	56	75
	16	54	74
	15	52	72
Opt. B	14	50	71
	13	48	69
	12	46	67
Opt. C	11	44	66

Chance of Success in CLG ALG/MTH LITERA,
Given ACT Mathematics Score



Placement Information for CLG ALG/MTH LITERA Using ACT Mathematics Score

This table shows the effects of using different ACT Mathematics Score cutoffs in CLG ALG/MTH LITERA. For example, if you were to require students to have an ACT Mathematics Score of at least 23 to be placed into CLG ALG/MTH LITERA, then you would expect:

- about 68% of your students would be placed in a lower-level course
- about 52% of your placement decisions would be correct
- about 72% of those placed in CLG ALG/MTH LITERA would obtain a B or higher

ACT Mathematics Score			B or higher		C or higher	
		Percent placed in lower-level course	Accuracy rate	Success rate	Accuracy rate	Success rate
	35	99	38	85	21	92
	33	99	38	84	21	92
	32	99	38	83	22	91
	31	99	39	82	22	91
	30	98	39	82	22	90
	29	97	39	80	23	90
	28	96	40	79	24	89
	27	92	42	77	27	88
	26	88	44	76	30	87
	25	83	46	74	34	86
	24	76	49	73	38	86
	23	68	52	72	43	85
	22	61	54	71	48	84
	21	58	55	70	50	84
	20	51	57	69	54	83
	19	44	58	68	57	83
	18	34	60	67	63	82
	17	21	61	65	69	81
	16	10	62	64	75	80
	15	4	62	63	77	79
Opt. B	14	1	62	63	78	79
	13	0	62	62	79	79
	12	0	62	62	79	79
Opt. C	11		62	62	79	79

If present, the shaded rows highlight the optimal cutoff scores (i.e., those that lead to the highest percentage of correct placement decisions).

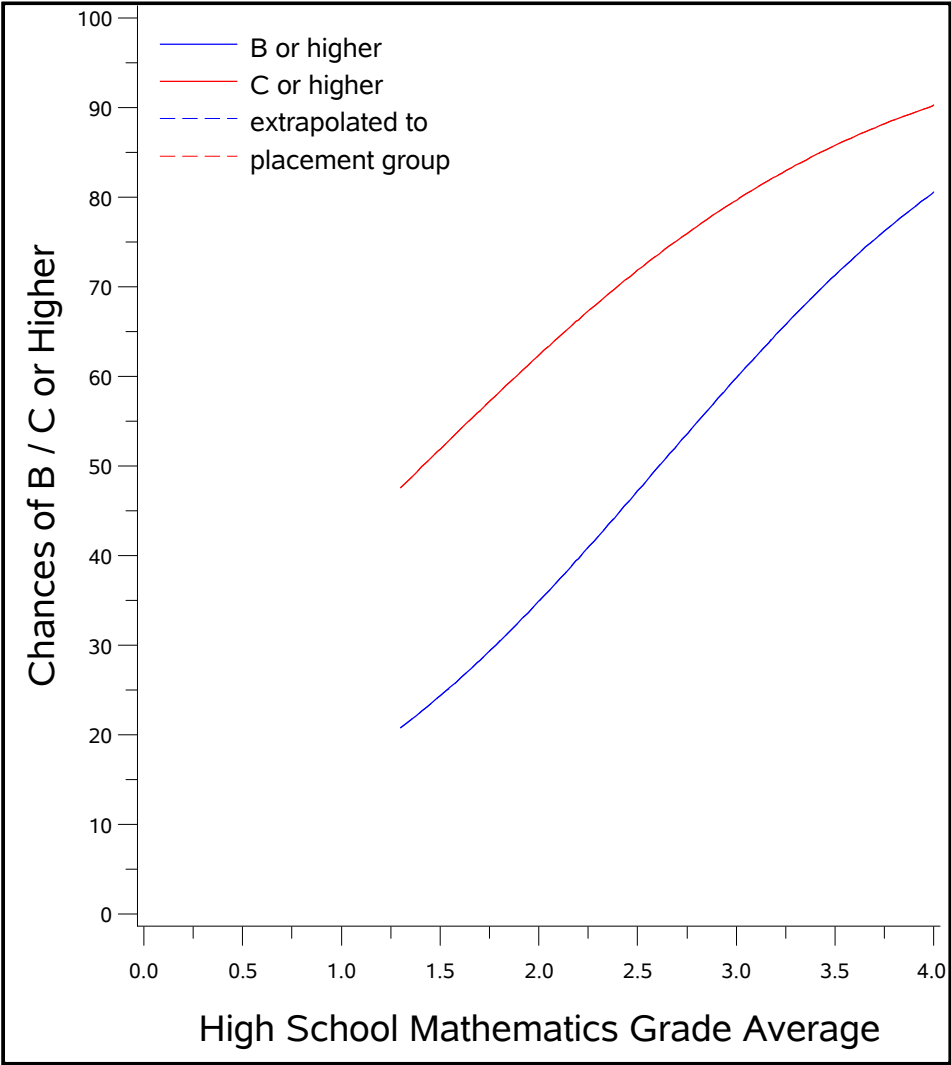
This table and graph report students' chances of achieving a B / C or higher in CLG ALG/MTH LITERA, given their High School Mathematics Grade Average. For example, the chance that a student with a High School Mathematics Grade Average of 2.7 would obtain a B or higher in CLG ALG/MTH LITERA is 52%.

If present, the boldface scores labeled as Opt. B and Opt. C in the table show the cutoff scores that are associated with the maximum accuracy rate. The information in the table and graph can be used to advise students about their chances of success in CLG ALG/MTH LITERA.

Chance of Success in CLG ALG/MTH LITERA,
Given High School Mathematics Grade Average

High School Mathematics Grade Average		Chance of success (B or higher)	Chance of success (C or higher)
Opt. B	4.0	81	90
	3.8	77	89
	3.7	75	88
	3.6	73	87
	3.5	71	86
	3.4	69	85
	3.3	67	84
	3.2	65	82
	3.0	60	80
	2.8	55	77
	2.7	52	75
	2.5	47	72
	2.3	42	68
Opt. C	2.2	40	66
	2.0	35	62
	1.7	28	56
	1.5	24	52
	1.3	21	48

Chance of Success in CLG ALG/MTH LITERA,
Given High School Mathematics Grade Average



Placement Information for CLG ALG/MTH LITERA Using High School Mathematics Grade Average

This table shows the effects of using different High School Mathematics Grade Average cutoffs in CLG ALG/MTH LITERA. For example, if you were to require students to have a High School Mathematics Grade Average of at least 2.7 to be placed into CLG ALG/MTH LITERA, then you would expect:

- about 20% of your students would be placed in a lower-level course
- about 68% of your placement decisions would be correct
- about 69% of those placed in CLG ALG/MTH LITERA would obtain a B or higher

High School Mathematics Grade Average			B or higher		C or higher	
		Percent placed in lower-level course	Accuracy rate	Success rate	Accuracy rate	Success rate
Opt. B	4.0	81	49	81	35	90
	3.8	74	52	80	40	90
	3.7	70	55	79	44	90
	3.6	67	56	78	46	89
	3.5	60	59	77	51	89
	3.4	58	60	77	52	89
	3.3	46	64	75	60	87
	3.2	45	64	74	61	87
	3.0	29	67	71	70	86
	2.8	25	68	70	72	85
	2.7	20	68	69	75	85
	2.5	16	67	68	76	84
	2.3	10	67	67	78	83
	2.2	10	67	66	79	83
Opt. C	2.0	3	64	64	80	81
	1.7	1	64	64	81	81
	1.5	1	64	63	81	81
	1.3		63	63	80	81

If present, the shaded rows highlight the optimal cutoff scores (i.e., those that lead to the highest percentage of correct placement decisions).

The matrix reports students' chances of achieving a B or higher in CLG ALG/MTH LITERA, given their ACT Mathematics Score and High School Mathematics Grade Average. For example, the chance that a student with an ACT Mathematics Score of 17 and a High School Mathematics Grade Average of 2.2 would obtain a B or higher in CLG ALG/MTH LITERA is 40%.

High School Mathematics Grade Average

ACT Mathematics Score

Chance of a C or Higher in CLG ALG/MTH LITERA, Given ACT Mathematics Score and High School Mathematics Grade Average

The matrix reports students' chances of achieving a C or higher in CLG ALG/MTH LITERA, given their ACT Mathematics Score and High School Mathematics Grade Average. For example, the chance that a student with an ACT Mathematics Score of 17 and a High School Mathematics Grade Average of 2.2 would obtain a C or higher in CLG ALG/MTH LITERA is 66%.

If present, the dark gold area shows the combinations of ACT Mathematics Score and High School Mathematics Grade Average values that are at or near a 50% chance level. The combinations that maximize the percentage of correct placement decisions (accuracy rate) always correspond to a chance of 50%.

High School Mathematics Grade Average

4.0	87	87	88	88	88	88	88	88	89	89	89	89	89	89	89	90	90	90	90	90	90	90	90	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91	91
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ACT Mathematics Score

Placement Information for CLG ALG/MTH LITERA Using ACT Mathematics Score and High School Mathematics Grade Average

This table shows the impact of using different combinations of ACT Mathematics Scores and High School Mathematics Grade Averages as cutoff scores in CLG ALG/MTH LITERA. For example, if you were to require students to have at least a 50% chance of a B or higher based on their ACT Mathematics Scores and High School Mathematics Grade Averages to be placed into CLG ALG/MTH LITERA (see page 9), then you would expect:

- about 18% of your students would be placed in a lower-level course
- about 68% of your placement decisions would be correct
- about 69% of those placed in CLG ALG/MTH LITERA would obtain a B or higher

	B or higher			C or higher		
Chance range	Percent below	Accuracy rate	Success rate	Percent below	Accuracy rate	Success rate
91 - 99				95	23	91
85 - 90				71	43	90
82 - 84				50	58	88
79 - 81	90	43	81	37	66	87
76 - 78	76	51	80	27	71	86
73 - 75	70	55	79	21	74	85
70 - 72	62	58	78	17	76	84
67 - 69	54	61	76	13	78	84
64 - 66	46	64	75	10	79	83
61 - 63	44	64	74	6	80	82
58 - 60	36	66	73	3	81	81
55 - 57	28	67	71	2	81	81
52 - 54	23	68	70	1	81	81
49 - 51	18	68	69	1	81	81
46 - 48	18	68	69	0	81	81
43 - 45	16	68	68			
40 - 42	13	67	67			
37 - 39	10	67	66			
34 - 36	6	65	65			
31 - 33	2	64	64			
28 - 30	2	64	64			
25 - 27	1	64	64			
22 - 24	1	64	64			
19 - 21	1	63	63			
16 - 18						
10 - 15						
1 - 9						

If present, the shaded rows highlight the optimal cutoff combinations (i.e., those that lead to the highest percentage of correct placement decisions).

Logistic Regression Weights and Correlations

This table contains the estimated logistic regression weights used to calculate the chances of success in each course. The weights associated with each set of placement variables are shown with the corresponding significance level (p-value). This information can be used to calculate the chances of success for a given student.

A p-value is an estimate of the probability that a regression weight of magnitude equal to that reported in the table would occur by chance if the true regression weight were 0; the smaller the p-value, the more highly "statistically significant" the regression weight is. The correlation between the placement variables and course grades also is listed.

		B or higher		C or higher		
Course	Placement variable(s)	Logistic regression weight	P-value	Logistic regression weight	P-value	Correlation
CLG ALG/MTH LITERA	Intercept	-1.16		-0.18		
	ACT Mathematics Score	0.08	0.0826	0.08	0.1848	0.15
	Intercept	-2.67		-1.22		
	High School Mathematics Grade Average	1.02	0.0003	0.86	0.0062	0.29
	Intercept	-2.73		-1.45		
	ACT Mathematics Score and High School Mathematics Grade Average	0.00 1.02	0.9455 0.0005	0.02 0.84	0.8194 0.0096	0.29