

# Course Placement Service Report



**SOUTHERN ARKANSAS UNIVERSITY (0142)**  
**Magnolia, AR**

**Placement Group:** OFF-CAMPUS

**Subject Area:** Mathematics

**Data Cohort:** 20142015

**Date of Report:** August 10, 2016

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**Mathematics**

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# **Course Placement Report**

Information for Making Placement Decisions

**Placement Group:** OFF-CAMPUS

### 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.

		OFF-CAMPUS			Students who completed course		
Reference course	Placement variable	N	Mean	SD	N	Mean	SD
CLG ALG/MTH LITERA	ACT Mathematics Score	122	19.7	3.8	47	19.0	2.8
	High School Mathematics Grade Average	105	3.2	0.7	41	3.2	0.6
	ACT Mathematics Score and High School Mathematics Grade Average	105	19.9 3.2	3.9 0.7	41	19.2 3.2	2.9 0.6

### 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	47	2.7	1.1	68	89	1	Yes
	High School Mathematics Grade Average	41	2.8	0.9	71	93	0	Yes
	ACT Mathematics Score and High School Mathematics Grade Average	41	2.8	0.9	71	93	0	Yes

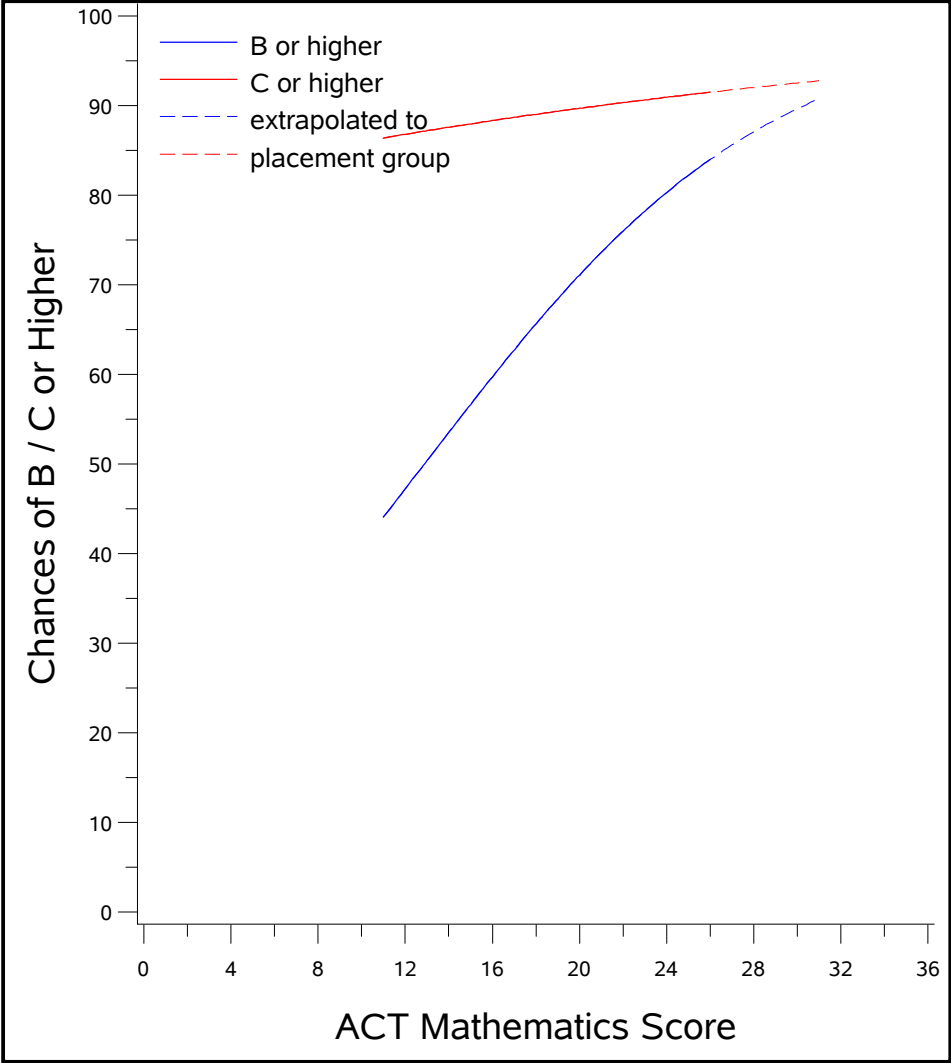
This table and graph report students' chances of achieving a B / C or higher in CLG ALG/MTH LITERA, given their ACT Mathematics Score. For example, the chance that a student with an ACT Mathematics Score of 21 would obtain a B or higher in CLG ALG/MTH LITERA is 74%.

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)
Opt. B	31	91	93
	28	87	92
	27	86	92
	26	84	92
	25	82	91
	24	80	91
	23	78	91
	22	76	90
	21	74	90
	20	71	90
	19	68	89
	18	66	89
	17	63	89
	16	60	88
	15	57	88
	14	54	88
	<b>13</b>	50	87
	11	44	86

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



Note: The chances of success for one or both criteria are all above or below 50%. No optimal cutoff score exists.

### 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 21 to be placed into CLG ALG/MTH LITERA, then you would expect:

- about 62% of your students would be placed in a lower-level course
- about 53% of your placement decisions would be correct
- about 80% 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
	31	99	31	91	11	93
	28	98	32	89	12	92
	27	97	33	87	13	92
	26	92	37	85	17	92
	25	87	40	84	21	92
	24	82	43	83	25	91
	23	71	49	81	34	91
	22	68	50	81	37	91
	21	62	53	80	41	91
	20	56	56	78	46	91
	19	48	59	77	53	90
	18	34	63	75	63	90
	17	23	66	73	72	90
	16	11	68	71	82	90
	15	5	69	70	86	90
	14	2	69	70	88	90
Opt. B	13	1	69	69	89	90
	11		69	69	90	90

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

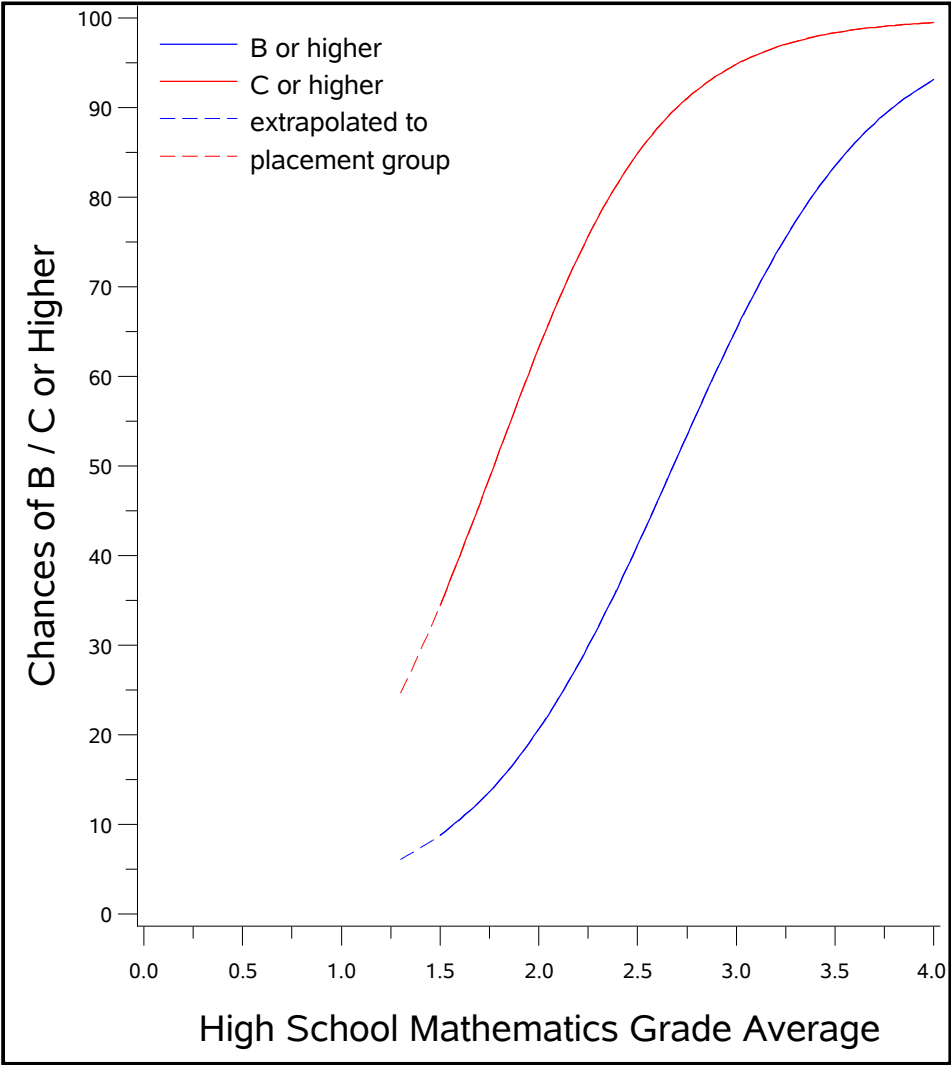
This table and graph report students' chances of achieving a B / C or higher in CLG ALG/MTH LITERA, given their High School Mathematics Grade Average. For example, the chance that a student with a High School Mathematics Grade Average of 2.7 would obtain a B or higher in CLG ALG/MTH LITERA is 51%.

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	93	99
	3.8	90	99
	3.7	88	99
	3.6	86	99
	3.5	84	98
	3.4	81	98
	3.3	77	97
	3.2	74	97
	3.0	65	95
	2.8	56	92
	<b>2.7</b>	51	90
	2.5	41	85
Opt. C	2.3	32	78
	<b>2.0</b>	21	63
	1.7	13	46
	1.5	9	34
	1.3	6	25

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 19% of your students would be placed in a lower-level course
- about 78% of your placement decisions would be correct
- about 78% 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
	4.0	83	47	93	26	99
	3.8	75	53	92	34	99
	3.7	70	56	92	38	99
	3.6	68	58	91	41	99
	3.5	62	62	90	47	99
	3.4	61	63	90	48	99
	3.3	48	70	87	60	99
	3.2	47	71	86	61	99
Opt. B	3.0	24	78	80	82	98
	2.8	21	78	79	84	97
	2.7	19	78	78	86	97
	2.5	15	77	77	88	97
Opt. C	2.3	10	76	74	91	96
	2.0	5	72	71	92	94
	1.7	4	71	71	92	93
	1.5	2	70	69	92	92
	1.3		68	68	91	91

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

### Chance of a B 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 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 27%.

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	85	85	86	86	87	88	88	88	89	89	90	90	91	91	91	92	92	92	93	93	93	94	94	94	94	95	95	95	95	95	96	96	96	96	96	97
3.9	82	83	83	84	85	85	86	86	87	87	88	88	89	89	90	90	91	91	91	92	92	92	93	93	93	94	94	94	94	95	95	95	95	95	96	96
3.8	79	80	81	81	82	83	83	84	85	85	86	86	87	87	88	88	89	89	90	90	91	91	91	92	92	92	93	93	93	94	94	94	94	95	95	95
3.7	76	77	78	78	79	80	81	81	82	83	83	84	85	85	86	86	87	87	88	88	89	89	90	90	90	91	91	92	92	92	93	93	93	93	94	94
3.6	72	73	74	75	76	77	77	78	79	80	80	81	82	83	83	84	84	85	86	86	87	87	88	88	89	89	90	90	90	91	91	92	92	92	93	93
3.5	68	69	70	71	72	73	74	75	76	76	77	78	79	80	80	81	82	82	83	84	84	85	86	86	87	87	88	88	89	89	89	90	90	91	91	91
3.4	64	65	66	67	68	69	70	71	72	73	74	75	76	76	77	78	79	80	80	81	82	82	83	84	84	85	85	86	87	87	88	88	89	89	89	90
3.3	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	79	80	81	82	82	83	84	84	85	85	86	86	87	88	88	
3.2	55	56	57	58	59	61	62	63	64	65	66	67	68	69	70	71	72	73	74	74	75	76	77	78	79	79	80	81	81	82	83	83	84	85	85	86
3.1	50	51	52	54	55	56	57	58	59	60	61	63	64	65	66	67	68	69	70	71	72	73	73	74	75	76	77	78	78	79	80	81	81	82	83	83
3.0	45	47	48	49	50	51	52	53	55	56	57	58	59	60	61	62	63	64	66	67	68	69	70	71	71	72	73	74	75	76	77	78	78	79	80	81
2.9	41	42	43	44	45	46	48	49	50	51	52	53	54	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	77
2.8	36	37	38	40	41	42	43	44	45	46	47	49	50	51	52	53	54	55	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74
2.7	32	33	34	35	36	37	38	39	40	42	43	44	45	46	47	48	50	51	52	53	54	55	56	57	59	60	61	62	63	64	65	66	67	68	69	70
2.6	28	29	30	31	32	33	34	35	36	37	38	39	40	41	43	44	45	46	47	48	49	50	52	53	54	55	56	57	58	60	61	62	63	64	65	66
2.5	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	45	46	47	48	49	50	51	53	54	55	56	57	58	59	60	62
2.4	21	22	23	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	46	47	48	49	50	51	52	54	55	56	57
2.3	18	19	19	20	21	22	22	23	24	25	26	27	28	29	30	30	31	32	33	34	36	37	38	39	40	41	42	43	44	45	47	48	49	50	51	52
2.2	15	16	17	17	18	19	19	20	21	22	22	23	24	25	26	27	27	28	29	30	31	32	33	34	35	36	37	39	40	41	42	43	44	45	46	48
2.1	13	14	14	15	15	16	17	17	18	19	19	20	21	21	22	23	24	25	26	26	27	28	29	30	31	32	33	34	35	36	37	38	40	41	42	43
2.0	11	12	12	13	13	14	14	15	15	16	16	17	18	18	19	20	21	21	22	23	24	25	25	26	27	28	29	30	31	32	33	34	35	36	37	38
1.9	9	10	10	11	11	11	12	12	13	13	14	15	15	16	16	17	18	18	19	20	20	21	22	23	24	24	25	26	27	28	29	30	31	32	33	34
1.8	8	8	9	9	9	10	10	11	11	11	12	12	13	13	14	14	15	16	16	17	18	18	19	20	20	21	22	23	24	24	25	26	27	28	29	30
1.7	7	7	7	7	8	8	8	9	9	10	10	10	11	11	12	12	13	13	14	14	15	16	16	17	17	18	19	20	20	21	22	23	23	24	25	26
1.6	6	6	6	6	7	7	7	7	8	8	8	9	9	10	10	10	11	11	12	12	13	13	14	14	15	15	16	17	17	18	19	19	20	21	22	22
1.5	5	5	5	5	5	6	6	6	6	7	7	7	8	8	8	9	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17	17	18	19	19
1.4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	8	9	9	9	10	10	11	11	12	12	13	13	14	14	15	15	16	17
1.3	3	3	3	4	4	4	4	4	5	5	5	5	5	6	6	6	6	7	7	7	8	8	8	9	9	9	10	10	11	11	12	12	12	13	14	14
1.2	3	3	3	3	3	3	3	4	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	8	8	8	9	9	9	10	10	11	11	11	11	12
1.1	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	8	8	8	9	9	9	9	10	10
1.0	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7	7	8	8	8	8
0.9	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	5	6	6	6	7	7	7
0.8	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	6	6	6
0.7	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	5	5	5	5
0.6	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4
0.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36

ACT Mathematics Score

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 75%.

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%.

Note: One or both of the statistica

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 19% of your students would be placed in a lower-level course
- about 79% of your placement decisions would be correct
- about 79% 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	86	43	94	Note: Statistics are not reported for negative relationships.		
85 - 90	71	56	92			
82 - 84	62	63	91			
79 - 81	56	66	89			
76 - 78	52	68	89			
73 - 75	48	70	87			
70 - 72	44	72	87			
67 - 69	40	74	85			
64 - 66	35	75	83			
61 - 63	25	78	81			
58 - 60	22	78	80			
55 - 57	21	79	80			
52 - 54	20	79	79			
49 - 51	19	79	79			
46 - 48	19	79	79			
43 - 45	17	78	78			
40 - 42	16	78	78			
37 - 39	16	78	78			
34 - 36	14	78	77			
31 - 33	11	76	75			
28 - 30	11	76	75			
25 - 27	10	75	74			
22 - 24	10	75	74			
19 - 21	8	75	74			
16 - 18	6	73	72			
10 - 15	4	72	71			
1 - 9	1	70	70			

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	-1.63		1.46		
	ACT Mathematics Score	0.13	0.2864	0.04	0.8367	0.19
	Intercept	-5.30		-4.20		
	High School Mathematics Grade Average	1.98	0.0081	2.37	0.0336	0.53
	Intercept	-5.93		-2.44		
	ACT Mathematics Score and High School Mathematics Grade Average	0.05 1.90	0.7578 0.0147	-0.13 2.59	0.585 0.0345	0.54