

Subsequent Success in a Mathematics Course by Students Who  
Received a Grade in Intermediate Algebra (Math 253)  
for the Fall, 2002 Semester  
at Saddleback College

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Summary

A total of 986 students received a final grade of A, B, C, CR(credit), NC(no credit), D, F, or W(withdrawal) in Intermediate Algebra (Math 253) for the Fall, 2002 semester at Saddleback College.

- 1) Nearly one-quarter of these 986 students withdrew from the Intermediate Algebra class in the Fall, 2002 semester. Two-thirds of these 239 students again enrolled in an Intermediate Algebra class as their subsequent mathematics class and slightly more than one-third of these 157 students successfully completed that subsequent Intermediate Algebra class.
- 2) Nearly one-quarter of these 986 students received the grade of D, F, or NC in the Intermediate Algebra class in the Fall, 2002 semester. Two-thirds of these 234 students again enrolled in an Intermediate Algebra class as their subsequent mathematics class and slightly less than one-half of these 155 students successfully completed that subsequent Intermediate Algebra class.
- 3) Fifty-two percent of these 986 students successfully completed the Intermediate Algebra class in the Fall, 2002 semester with a final grade of A, B, C, or CR.
- 4) Eighty-six percent of the 513 students who successfully completed the Intermediate Algebra class in the Fall, 2002 semester enrolled in a subsequent mathematics class. Thirty-four percent of these 443 students enrolled in Introduction to Statistics (Math 10), 28 percent enrolled in College Algebra (Math 7), 18 percent took College Algebra for Brief Calculus (Math 8), 17 percent took Trigonometry (Math 124), 3 percent enrolled in Mathematics for Liberal Arts Students (Math 105) at Irvine Valley College, and 1 percent enrolled in Finite Mathematics (Math 9).
- 5) Nearly two-thirds of the 443 students who successfully completed Intermediate Algebra in the Fall, 2002 semester and enrolled in another mathematics class received a grade of A, B, C, or CR in that subsequent mathematics class. Students who enrolled in Mathematics for Liberal Arts Students (Math 105) and College Algebra (Math 7) were most likely to be successful and students who enrolled in Introduction to Statistics (Math 10) and Trigonometry (Math 124) were least likely to be successful.
- 6) Although the average grade received in Intermediate Algebra by students who enrolled in each of the different subsequent mathematics courses varied significantly, there did not appear to be a relationship between the average grade in Intermediate Algebra and the proportion of students who were successful in a particular subsequent course.
- 7) Students who earned an A grade in Intermediate Algebra were quite likely to be successful in their subsequent mathematics class. Students who earned grades of B or C in Intermediate Algebra were at significant risk of being unsuccessful if they enrolled in either Introduction to Statistics (Math 10) or Trigonometry (Math 124) as their subsequent course. Students who earned a grade of C in Intermediate Algebra were likely to be successful in College Algebra (Math 7) and Mathematics for Liberal Arts Students (Math 105), but were unlikely to be successful in

College Algebra for Brief Calculus (Math 8), Introduction to Statistics (Math 10), or Trigonometry (Math 124).

- 8) Nearly ninety percent of the students who enrolled in another mathematics course in the South Orange County Community College District (SOCCCD) during the four years following their Intermediate Algebra class in the Fall, 2002 semester took that subsequent class within one year of completing the Intermediate Algebra class.
- 9) Only 29 of the 443 students who took another mathematics course in the SOCCCD within a four year period after successfully completing Intermediate Algebra in the Fall, 2002 semester waited more than 1 year to take that class. Sixty-two percent of these late enrolling students were successful, but the distribution of these successful students over the semesters from Spring, 2004 through Spring, 2006 did not suggest that students were less likely to succeed if they chose a longer delay between their Intermediate Algebra course and their subsequent mathematics course.

### Population for this Study

Saddleback College offered 24 sections of Intermediate Algebra (Math 253) during the Fall, 2002 semester. A total of 986 students received a final grade of A, B, C, CR(credit), NC(no credit), D, F, or W(withdrawal). This total did not include students who had enrolled in an Intermediate Algebra class but withdrew from that class on or before the end of the fourth week of instruction. No record of enrollment in Intermediate Algebra for the Fall, 2002 semester would appear on the academic record of these students. The Fall, 2002 semester consisted of 16 instructional weeks followed by one week of final examinations.

### Distribution of Grades Earned in Intermediate Algebra

Fifty-two percent of these 986 students successfully completed Intermediate Algebra with a grade of A, B, C, or CR. Twenty-four percent withdrew from the course and received a final grade of W. The distribution of grades received by these 986 students was placed in the table below.

Distribution of Grades Earned by Students in Intermediate Algebra  
for the Fall, 2002 Semester

Grade in Intermediate Algebra	Number with this Grade	Percent (N = 986)
A	99	10%
B	161	16%
C	234	24%
CR	19	2%
D	72	2%
F	142	7%
NC	20	14%
W	239	24%

## Research Method Used to Evaluate Course Effectiveness

As a means of evaluating the effectiveness of the Intermediate Algebra course at Saddleback College as preparation for a transfer level mathematics course in the South Orange County Community College District (SOCCCD), the subsequent mathematics course within the SOCCCD taken by the students in the study population was identified and their final grade in that course determined. Only information about the first mathematics courses taken by students following the Fall, 2002 Intermediate Algebra course was included in this study.

Three of the 986 students in the study population each enrolled in two different mathematics courses during the Spring, 2003 semester. Each of these students was considered to have enrolled in two subsequent mathematics classes and the population size increased from 986 to 989 when student success in these subsequent mathematics courses was evaluated.

### Students Who Withdrew from Intermediate Algebra for the Fall, 2002 Semester

Three-quarters of those who withdrew from Intermediate Algebra during the Fall, 2002 semester again enrolled in a mathematics course in the SOCCCD at some point within the nearly four year period following the Fall, 2002 semester that ended with the Spring, 2006 semester. Of this group of 179 students, 88 percent again enrolled in Intermediate Algebra. Roughly a third of this group of 157 students successfully completed the course with a grade of A, B, C, or CR. Another third received grades of D, F, or NC, and the last third again received a final course grade of W. Thirteen of this group of 179 students enrolled in Beginning Algebra (Math 251) and just more than half successfully completed that course (i.e. received a grade of A, B, C, or CR). Nine of this group of 179 students enrolled in a transfer level mathematics class for which Intermediate Algebra was the prerequisite and, again, just more than half were successful in that class.

### Distribution of Subsequent Mathematics Course Enrollment and Success for Students who Withdrew from Intermediate Algebra during the Fall, 2002 Semester

Title of Subsequent Course	Number of Students Who Received a Grade in the Subsequent Course	Percent That Received an A, B, C, or CR in the Subsequent Course
Beginning Algebra (Math 251)	13	54%
Intermediate Algebra (Math 253)	157	36%
College Algebra (Math 7)	1	0%
College Algebra for Brief Calculus (Math 8)	4	75%
Finite Mathematics (Math 9)	2	50%
Statistics (Math 10)	2	50%

## Students Who Earned a Grade of D, F, or NC in Intermediate Algebra for the Fall, 2002 Semester

Nearly three-quarters of those who received the grades of D, F, NC in Intermediate Algebra attempted a mathematics course in the SOCCCD at some point within the nearly four year period following the Fall, 2002 semester that ended with the Spring, 2006 semester. Of this group of 171 students, 91 percent again enrolled in Intermediate Algebra. Forty-seven percent of this group of 155 students successfully completed that second Intermediate Algebra course with a grade of A, B, C, or CR. Nearly a quarter of these 155 students withdrew and received a grade of W.

One of this group of 171 students enrolled in Pre-Algebra (Math 351) and earned an A grade in that class. Three students from this group of 171 students enrolled in Beginning Algebra (Math 251) and one student successfully completed that course. Twelve of this group of 171 students enrolled in a transfer level mathematics class for which Intermediate Algebra was the prerequisite and one-third were successful in that class.

### Distribution of Subsequent Mathematics Course Enrollment and Success for Students who Earned a Grade of D, F, or NC in Intermediate Algebra during the Fall, 2002 Semester

Title of Subsequent Course	Number of Students Who Received a Grade in the Subsequent Course	Percent That Received an A, B, C, or CR in the Subsequent Course
Pre-Algebra Mathematics (Math 351)	1	100%
Beginning Algebra (Math 251)	3	33%
Intermediate Algebra (Math 253)	155	47%
College Algebra (Math 7)	4	25%
College Algebra for Brief Calculus (Math 8)	1	0%
Statistics (Math 10)	7	43%

## Students Who Earned a Grade of A, B, C, or CR in Intermediate Algebra for the Fall, 2002 Semester

### Overall Student Success in the Subsequent Mathematics Course

Over 86 percent of those who received the grade of A, B, C, or CR in Intermediate Algebra attempted a mathematics course in the SOCCCD at some point within the nearly four year period following the Fall, 2002 semester that ended with the Spring, 2006 semester. Of this group of 443 students, 34 percent enrolled in Introduction to Statistics (Math 10), 28 percent enrolled in College Algebra (Math 7), 18 percent took College Algebra for Brief Calculus (Math 8), 17 percent took Trigonometry (Math 124), 3 percent enrolled in Mathematics for Liberal Arts Students (Math 105) at Irvine Valley College, and 1 percent enrolled in Finite Mathematics (Math 9). Of this group of 443 students, nearly two-thirds successfully completed the subsequent mathematics course. The distribution of student success, categorized by the subsequent mathematics course chosen, was placed in the following table. The total number of students in this table is 446 because 3 students each took two mathematics classes in the semester immediately following their Fall, 2002 Intermediate Algebra class. For the purposes of this table, a student taking two subsequent courses is counted as two students who each took one subsequent mathematics class.

Distribution of Subsequent Mathematics Course Enrollment and Success  
for Students who Earned a Grade of A, B, C, or CR in  
Intermediate Algebra during the  
Fall, 2002 Semester

Title of Subsequent Course	Number of Students Who Received a Grade in the Subsequent Course	Percent That Received an A, B, C, or CR in the Subsequent Course
Mathematics for Liberal Arts Students (Math 105)	13	92%
College Algebra (Math 7)	124	85%
Finite Mathematics (Math 9)	4	75%
College Algebra for Brief Calculus (Math 8)	78	65%
Statistics (Math 10)	149	54%
Trigonometry (Math 124)	77	52%
Pre-Calculus (Math 2)	1	0%

At 92 percent, the success rate in the first mathematics class that students took after Intermediate Algebra was highest for Mathematics for Liberal Arts Students (Math 105). For courses, in which more than one student enrolled, the lowest success rate occurred in Trigonometry (Math 124). The success rate for students in Trigonometry (Math 124) was 52 percent. Since students self-selected their next mathematics course after Intermediate Algebra, a possible explanation for this disparity in subsequent course success was that primarily stronger students enrolled in the courses with the higher success rates. This possibility was investigated as research question 1.

### Research Question 1

Did students who received the better grades in Intermediate Algebra primarily enroll in the subsequent mathematics courses that exhibited the highest success rates?

#### Research Question 1 Analysis

The average grade that students received in Intermediate Algebra was calculated for the group of students who enrolled in each of the subsequent courses. This average was calculated using 4 for an A grade in Intermediate Algebra, 3 for a B grade in Intermediate Algebra, 2 for a C grade in Intermediate Algebra. Students who received a grade of CR (i.e. credit) in Intermediate Algebra were not included in the calculation. The results are shown in the following table and the courses are listed in the decreasing order of the average grade students earned in Intermediate Algebra.

Average Grade in Intermediate Algebra for Students Enrolled in a Subsequent Mathematics Course and the Proportion of Students Who Were Successful in that Subsequent Course

Title of Subsequent Course	Average Grade in Intermediate Algebra for Students in the Subsequent Course	Percent Who Received an A, B, C, or CR in the Subsequent Course
Finite Mathematics (Math 9)	3.25	75%
Trigonometry (Math 124)	3.05	52%
College Algebra for Brief Calculus (Math 8)	2.91	65%
College Algebra (Math 7)	2.75	85%
Statistics (Math 10)	2.56	54%
Mathematics for Liberal Arts Students (Math 105)	2.25	92%
Pre-Calculus (Math 2)	2.00	0%

The average grade in Intermediate Algebra for students in the various subsequent mathematics courses in which more than one student enrolled varied from a B+ average for those enrolled in Finite Mathematics (Math 9) to a C+ average for those enrolled in Mathematics for Liberal Arts Students (Math 105). Students in Trigonometry (Math 124) had a higher average grade in Intermediate Algebra than students enrolled in College Algebra (Math 7), but the students in Trigonometry had the lowest success rate among the subsequent mathematics courses that had more than one student involved in this study.

#### Research Question 1 Conclusion

Although the average grade in Intermediate Algebra for students who enrolled in a subsequent mathematics course varied, there was no apparent relationship between that average grade in Intermediate Algebra and the proportion who were successful in that particular subsequent course. Consequently, it did not appear that students who received the better grades in Intermediate Algebra primarily enrolled in the subsequent mathematics courses that exhibited the highest student success rates.

## Research Question 2

Did students, who received higher grades in Intermediate Algebra, have higher success rates in the subsequent mathematics courses than students who received lower grades in Intermediate Algebra?

### Research Question 2 Analysis

Students in each of the subsequent mathematics courses were grouped according to the grade they received in Intermediate Algebra. The percent of students who successfully completed that subsequent course with a grade of A, B, C, or CR was calculated for each of these groups. The results were placed in the following table.

Percent of Those Who Successfully Completed Their Subsequent  
Mathematics Class Categorized by the Grade Received in  
Intermediate Algebra

Title of Subsequent Course	Grade Received in Intermediate Algebra			
	CR	A	B	C
College Algebra (Math 7)	100% N=1	96% N=25	93% N=42	75% N=56
College Algebra for Brief Calculus (Math 8)	100% N=2	84% N=19	68% N=31	46% N=26
Finite Mathematics (Math 9)	--	100% N=2	100% N=1	0% N=1
Statistics (Math 10)	60% N=10	80% N=19	58% N=40	45% N=80
Mathematics for Liberal Arts Students (Math 105)	100% N=1	--	100% N=3	89% N=9
Trigonometry (Math 124)	100% N=2	85% N=27	36% N=25	26% N=23

Note: The base for each percent is shown in the cell containing that percent.

### Research Question 2 Conclusion

Students, who received higher grades in Intermediate Algebra, had higher success rates in the subsequent mathematics courses than students who received lower grades in Intermediate Algebra. Students who earned an A grade in Intermediate Algebra were quite likely to be successful in their subsequent mathematics class. Students who earned grades lower than an A in Intermediate Algebra were at significant risk of being unsuccessful if they enrolled in either Introduction to Statistics (Math 10) or Trigonometry (Math 124) as their subsequent course. Students who earned a grade of C in Intermediate Algebra were most likely to be successful in College Algebra (Math 7) and Mathematics for Liberal Arts Students (Math 105), but were unlikely to be successful in College Algebra for Brief Calculus (Math 8), Statistics (Math 10), and Trigonometry (Math 124).

Student Enrollment in a Subsequent Mathematics Class  
Categorized by the Academic Term in which the  
Student Enrolled in that Subsequent Class

Nearly 90 percent of the students who enrolled in another mathematics course in SOCCCD during the four years following their Intermediate Algebra class in the Fall, 2002 semester enrolled in that subsequent class within one year of completing the Intermediate Algebra class. The number of students from the study population of 986 who took a subsequent mathematics course through the Spring, 2006 semester categorized by the academic term in which that subsequent course was taken was placed in the following table.

Enrollment in the Subsequent Mathematics Class Categorized by the Academic  
Term in which the Student Enrolled in that Subsequent Class  
following the Fall, 2002 Intermediate Algebra Class

Academic Term of Subsequent Mathematics Class	Number of Students	Relative Frequency N = 986	Cumulative Number of Students	Cumulative Relative Frequency N = 986
Spring, 2003	545	55%	545	55%
Summer, 2003	34	3%	579	59%
Fall, 2003	128	13%	707	72%
Spring, 2004	36	4%	743	75%
Summer, 2004	6	1%	749	76%
Fall, 2004	23	2%	772	78%
Spring, 2005	11	1%	783	79%
Summer, 2005	2	<1%	785	80%
Fall, 2005	4	<1%	789	80%
Spring, 2006	4	<1%	793	80%

The number of students from the group of 513 who successfully completed Intermediate Algebra in the Fall, 2002 semester categorized by the semester in which they took their next mathematics class was placed in the following table.

Enrollment, by Students who Successfully Completed Intermediate Algebra in  
Fall, 2002, in a Subsequent Mathematics Class Categorized  
by the Academic Term in which the Student Enrolled  
in that Subsequent Class

Academic Term of Subsequent Mathematics Class	Number of Students	Relative Frequency N = 513	Cumulative Number of Students	Cumulative Relative Frequency N = 513
Spring, 2003	352	69%	352	69%
Summer, 2003	15	3%	367	72%
Fall, 2003	47	9%	414	81%
Spring, 2004	8	2%	422	82%
Summer, 2004	2	<1%	424	83%
Fall, 2004	9	2%	433	84%
Spring, 2005	5	1%	438	85%
Summer, 2005	0	0%	438	85%
Fall, 2005	2	<1%	440	86%
Spring, 2006	3	1%	443	86%



### Research Question 3

Was a student's success in the subsequent mathematics course affected by a delay in taking that course after the student successfully completed Intermediate Algebra in the Fall, 2002 semester?

#### Research Question 3 Analysis

In the tables below were placed the success rates for the subsequent courses in which students enrolled categorized by the students' grades in Intermediate Algebra and the semester in which the subsequent mathematics classes were taken.

Successful Completion Rates for College Algebra (Math 7) Categorized  
by the Grade Received in Intermediate Algebra and the  
Academic Term in which the Subsequent  
Course was Taken

		Grade in Intermediate Algebra (Math 253)			
Academic Term	All Students	A	B	C	CR
Spring, 2003	86% N=101	95% N=22	94% N=31	77% N=47	100% N=1
Summer, 2003	100% N=3	--	100% N=1	100% N=2	--
Fall, 2003	85% N=13	100% N=2	100% N=5	67% N=6	--
Spring, 2004	50% N=2	--	50% N=2	--	--
Summer, 2004	--	--	--	--	--
Fall, 2004	100% N=1	--	100% N=1	--	--
Spring, 2005	100% N=1	--	100% N=1	--	--
Summer, 2005	--	--	--	--	--
Fall, 2005	50% N=2	--	100% N=1	0% N=1	--
Spring, 2006	100% N=1	100% N=1	--	--	--

Successful Completion Rates for College Algebra for Brief Calculus (Math 8)  
Categorized by the Grade Received in Intermediate Algebra and the  
Term in which the Subsequent Course was Taken

Academic Term	All Students	Grade in Intermediate Algebra (Math 253)			
		A	B	C	CR
Spring, 2003	65% N=65	88% N=17	64% N=25	43% N=21	100% N=2
Summer, 2003	100% N=1	--	--	100% N=1	--
Fall, 2003	75% N=8	100% N=1	100% N=4	33% N=3	--
Spring, 2004	0% N=1	0% N=1	--	--	--
Summer, 2004	100% N=1	--	100% N=1	--	--
Fall, 2004	50% N=2	--	0% N=1	100% N=1	--
Spring, 2005	--	--	--	--	--
Summer, 2005	--	--	--	--	--
Fall, 2005	--	--	--	--	--
Spring, 2006	--	--	--	--	--

Successful Completion Rates for Finite Mathematics (Math 9)  
Categorized by the Grade Received in Intermediate Algebra  
and the Term in which the Subsequent  
Course was Taken

Academic Term	All Students	Grade in Intermediate Algebra (Math 253)			
		A	B	C	CR
Spring, 2003	100% N=3	100% N=2	100% N=1	--	--
Summer, 2003	--	--	--	--	--
Fall, 2003	0% N=1	--	--	0% N=1	--
Spring, 2004	--	--	--	--	--
Summer, 2004	--	--	--	--	--
Fall, 2004	--	--	--	--	--
Spring, 2005	--	--	--	--	--
Summer, 2005	--	--	--	--	--
Fall, 2005	--	--	--	--	--
Spring, 2006	--	--	--	--	--

Successful Completion Rates for Introduction to Statistics (Math 10)  
Categorized by the Grade Received in Intermediate Algebra  
and the Term in which the Subsequent Course was Taken

Academic Term	All Students	Grade in Intermediate Algebra (Math 253)			
		A	B	C	CR
Spring, 2003	53% N=111	86% N=14	58% N=26	43% N=61	60% N=10
Summer, 2003	83% N=6	100% N=1	100% N=3	50% N=2	--
Fall, 2003	41% N=17	33% N=3	50% N=6	38% N=8	--
Spring, 2004	75% N=4	100% N=1	--	67% N=3	--
Summer, 2004	100% N=1	--	--	100% N=1	--
Fall, 2004	60% N=5	--	100% N=1	50% N=4	--
Spring, 2005	33% N=3	--	0% N=2	100% N=1	--
Summer, 2005	--	--	--	--	--
Fall, 2005	--	--	--	--	--
Spring, 2006	50% N=2	--	50% N=2	--	--

Successful Completion Rates for Mathematics for Liberal Arts Students  
(Math 105) Categorized by the Grade Received in Intermediate Algebra  
and the Term in which the Subsequent Course was Taken

Academic Term	All Students	Grade in Intermediate Algebra (Math 253)			
		A	B	C	CR
Spring, 2003	100% N=9	--	100% N=2	100% N=6	100% N=1
Summer, 2003	100% N=2	--	100% N=1	100% N=1	--
Fall, 2003	0% N=1	--	--	0% N=1	--
Spring, 2004	--	--	--	--	--
Summer, 2004	--	--	--	--	--
Fall, 2004	100% N=1	--	--	100% N=1	--
Spring, 2005	--	--	--	--	--
Summer, 2005	--	--	--	--	--
Fall, 2005	--	--	--	--	--
Spring, 2006	--	--	--	--	--

Successful Completion Rates for Trigonometry (Math 124) Categorized  
by the Grade Received in Intermediate Algebra and the Term  
in which the Subsequent Course was Taken

Academic Term	All Students	Grade in Intermediate Algebra (Math 253)			
		A	B	C	CR
Spring, 2003	55% N=65	87% N=23	38% N=24	35% N=17	100% N=1
Summer, 2003	100% N=3	100% N=3	--	--	--
Fall, 2003	0% N=7	0% N=1	0% N=1	0% N=5	--
Spring, 2004	0% N=1	--	--	0% N=1	--
Summer, 2004	--	--	--	--	--
Fall, 2004	--	--	--	--	--
Spring, 2005	100% N=1	--	--	--	100% N=1
Summer, 2005	--	--	--	--	--
Fall, 2005	--	--	--	--	--
Spring, 2006	--	--	--	--	--

Research Question 3 Conclusion

The effect of delaying enrollment in the subsequent mathematics course on a student's success in that course was difficult to ascertain. Only 29 of the 443 students who took another mathematics course in the SOCCCD within a four year period after successfully completing Intermediate Algebra in the Fall, 2002 semester waited more than 1 year to take that class. Sixty-two percent of these late enrolling students were successful, but the distribution of these successful students over the semesters from Spring, 2004 through Spring, 2006 did not suggest that students were less likely to succeed if they chose a longer delay between their Intermediate Algebra course and their subsequent mathematics course.

# APPENDIX

## Distribution of Fall, 2002 Intermediate Algebra (Math 253) Students Categorized by the Grade Earned in Math 253 and the Subsequent Mathematics Course Taken in the South Orange County Community College District

The number of students in each cell that successfully completed the subsequent course is noted in parentheses. For example, 42 students received the grade of B in Intermediate Algebra (Math 253) and took College Algebra (Math 7) as their next mathematics course. Of this group of 42 students, 39 completed College Algebra (Math 7) with a grade of A, B, C, or CR(credit)

Grade in Math 253	Subsequent Mathematics Class											Row Totals
	No Math Class	Math 2	Math 7	Math 8	Math 9	Math 10	Math 105	Math 124	Math 251	Math 253	Math 351	
A	8	--	25 (24)	19 (16)	2 (2)	19 (15)	--	27 (23)	--	--	--	100
B	21	--	42 (39)	31 (21)	1 (1)	40 (23)	3 (3)	25 (9)	--	--	--	163
C	38	1 (0)	56 (42)	26 (12)	1 (0)	80 (36)	9 (8)	23 (6)	--	--	--	234
CR	3	--	1 (1)	2 (2)	--	10 (6)	1 (1)	2 (2)	--	--	--	19
NC	6	--	--	--	--	1 (1)	--	--	--	13 (6)	--	20
D	13	--	3 (1)	--	--	3 (2)	--	--	--	53 (36)	--	72
F	44	--	1 (0)	1 (0)	--	3 (0)	--	--	3 (1)	89 (31)	1 (1)	142
W	60	--	1 (0)	4 (3)	2 (1)	2 (1)	--	--	13 (7)	157 (56)	--	239
Column Totals	193	1	129	83	6	158	13	77	16	312	1	989

### Course List:

Math 2 Pre-Calculus Mathematics

Math 7 College Algebra

Math 8 College Algebra for Brief Calculus

Math 9 Finite Mathematics

Math 10 Introduction to Statistics

Math 105 Mathematics for Liberal Arts Students

Math 124 Trigonometry

Math 251 Beginning Algebra

Math 253 Intermediate Algebra

Math 351 Pre-Algebra Mathematics