

Math Transitions

Introduction

This report is the result of a request by a local math PLC. The tables may provide an indication of the degree of alignment between high school and community college math curricula.

- Charts and Tables 1 and 2 present an overall view of math transitions from a local high school district to a local community college district.
- Data were available from 1998–99 through 2009–10 for the high school districts, and data from summer 1999 through spring 2009 were used for the community college. Concurrent enrollments, in which the student enrolls in a community college course while still a high school student, were not used.
- Tables should be read row wise by selecting a high school math level and reading across that row to see what percent of those students took a given level of math in community college as their next math course (Table 1) and their success rate in that course (Table 2).
- Success is defined as earning a grade of C or better.
- Please note that the categories have been assigned by research staff and will need to be verified by local faculty. Tables 3 and 4 are provided for this purpose.

Summary

- **Overall**, compared with the highest level math course attempted in high school:
 - 44% of the cohorts' first attempted CC math courses were of a lower level,
 - 28% of the cohorts' first attempted CC math courses were of an equal level, and
 - 28% of the cohorts' first attempted CC math courses were of a higher level.
- In their first CC math course attempt, 52% of students were successful.

Note: Percentages may not sum to 100% due to rounding.

Chart 1. Math Transition From High School to Community College-Overall

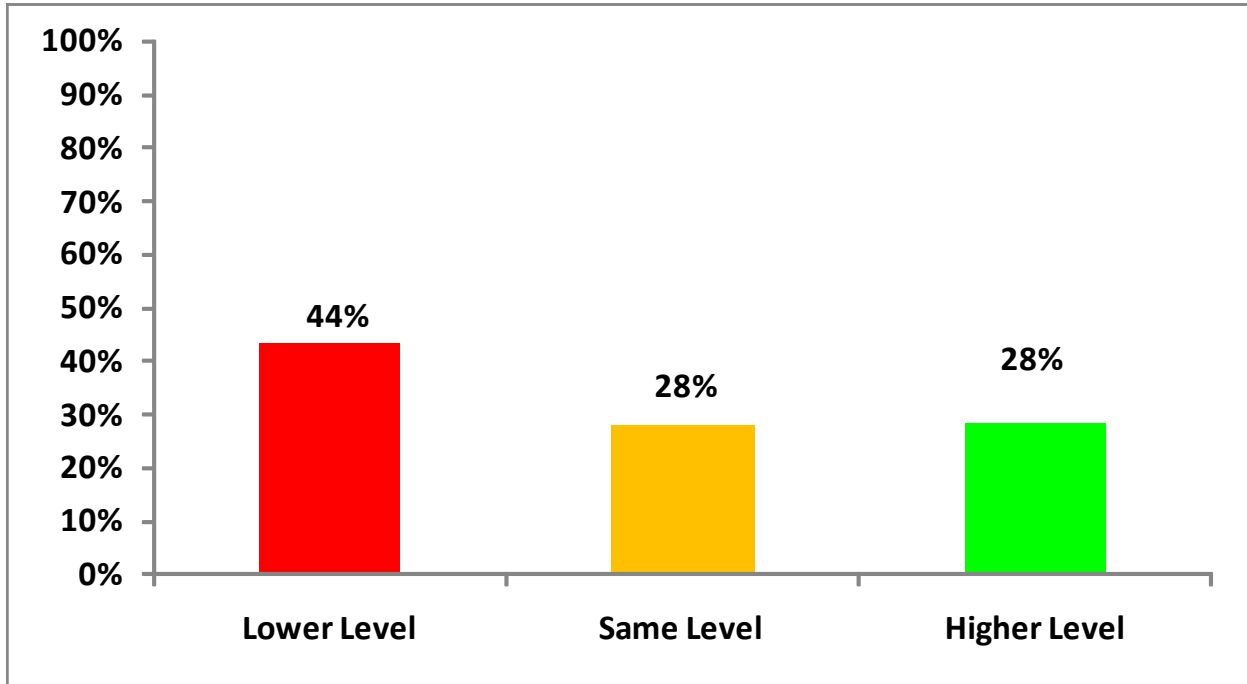


Chart 2. Success Rates for Math Transition-Overall

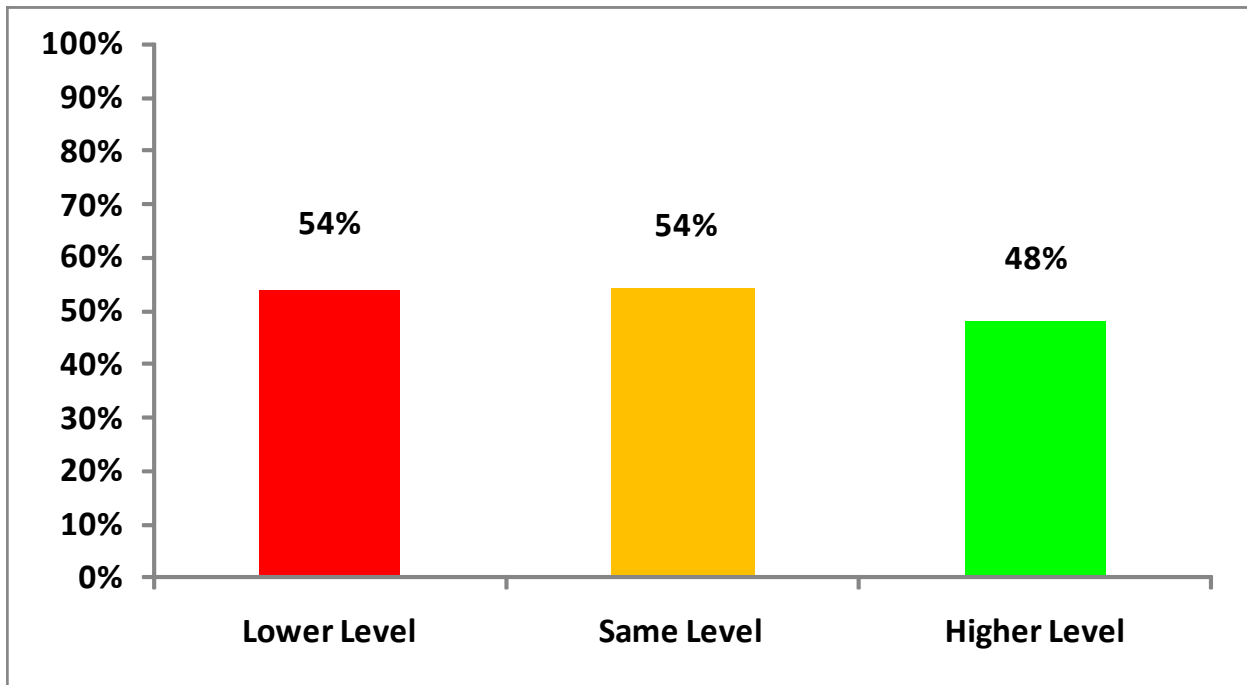


Table 1. Math Transition From High School to Community College-Overall

		First math class attempted in community college									Total	
		Basic Math	Pre-Alg	Beg Alg	Geo	Int Alg	Stats/Finite	Pre-Calc	Calc	Lin Alg	%	Count
Highest level of math successfully completed in high school	Basic Math	25%	25%	30%	-	17%	2%	0%	*	*	100%	1452
	Pre-Alg	50%	33%	*	-	-	-	-	-	-	100%	24
	Beg Alg	21%	26%	32%	-	17%	2%	0%	*	-	100%	1764
	Geo	12%	20%	37%	0%	22%	6%	2%	1%	0%	100%	2380
	Int Alg	4%	9%	30%	*	37%	16%	3%	1%	*	100%	2720
	Stats/ Finite	*	*	16%	-	50%	22%	7%	*	*	100%	174
	Pre-Calc	1%	1%	8%	*	27%	39%	17%	6%	1%	100%	1355
	Calc	-	-	*	*	6%	35%	20%	23%	15%	100%	212
	%	12%	15%	28%	0%	25%	13%	4%	2%	1%		
	Total Count	1163	1548	2853	9	2545	1295	445	170	53		10081

* between 1 and 4 students; dashes (-) indicate zero students

Note: Percentages may not sum to 100% due to rounding.

Table 2. Success Rates for Math Transition-Overall

		First math class attempted in community college									Total
		Basic Math	Pre-Alg	Beg Alg	Geo	Int Alg	Stats/Finite	Pre-Calc	Calc	Lin Alg	
Highest level of math successfully completed in high school	Basic Math	43%	41%	33%	-	37%	66%	43%	*	*	39%
	Pre-Alg	25%	25%	*	-	-	-	-	-	-	33%
	Beg Alg	40%	51%	35%	-	46%	60%	83%	*	-	43%
	Geo	51%	55%	40%	20%	46%	64%	64%	67%	40%	47%
	Int Alg	61%	68%	59%	*	56%	61%	57%	61%	*	59%
	Stats/ Finite	*	*	63%	-	66%	85%	85%	*	*	70%
	Pre-Calc	44%	80%	72%	*	73%	72%	62%	60%	56%	69%
	Calc	-	-	*	*	58%	72%	77%	69%	84%	74%
	Total	45%	53%	45%	33%	54%	67%	63%	62%	75%	52%

* between 1 and 4 students; dashes (-) indicate zero students

Red = transitioned down at least one level from high school to community college

Yellow = stayed at same level in community college as in high school

Green = transitioned up at least one level from high school to community college

Table 4. Math Rankings for High School Math Courses

Math Ranking	CBEDS	Course Title	N
Basic Math	2400	ALGEBRA A (SEM2)	*
Basic Math	2400	ALGEBRA B (SEM2)	*
Basic Math	2400	DIPLOMA MATH	66
Basic Math	2400	GEN MATH	*
Basic Math	2400	LV MATH IA	11
Basic Math	2400	LV MATH IB	19
Basic Math	2400	MAT	*
Basic Math	2400	MATH	42
Basic Math	2400	MATH 9	*
Basic Math	2400	MATH PROF	*
Basic Math	2400	MATH SUPPORT	23
Basic Math	2400	MATH(GENRL)	*
Basic Math	2400	TECH PREP MATH	296
Basic Math	2400	TECH PREP MATH1	48
Basic Math	2400	WICAT MATH	9
Basic Math	2401	BUSINESS MATH	*
Basic Math	2401	CHEMISTRY P PLUS	*
Basic Math	2401	ESNTL MATH	6
Basic Math	2401	MATH 4 LIV I	127
Basic Math	2401	MATH 4 LIV II	134
Basic Math	2401	MATH FOR LVNG I	7
Basic Math	2401	MATH FR LVNG I	*
Basic Math	2401	MATH FR LVNG II	*
Basic Math	2402	ALG	*
Basic Math	2402	ALG SPT A	*
Basic Math	2402	CAH	*
Basic Math	2402	CAHSEE MATHSPTB	*
Basic Math	2402	CAHSEE SUPPORT	6
Basic Math	2402	CAHSEEMATHPREPA	*
Basic Math	2402	CAHSEEMATHPREPB	*
Basic Math	2402	DIPLOMA MATH	8
Basic Math	2402	DIPLOMA MATH (KAPLAN)	6
Basic Math	2402	GEOM ST 1B	11
Basic Math	2402	HSE	106
Basic Math	2402	HSEEMATH A	26
Basic Math	2402	HSEEMATH B	28
Basic Math	2402	L.C. MATH	*
Basic Math	2402	MATH PRFCNCY	*
Basic Math	2402	MATH REVIEW	72
Basic Math	2402	MATH SUPPORT	*
Basic Math	2420	MATH A	37

Math Ranking	CBEDS	Course Title	N
Basic Math	2420	MATH A EP	7
Basic Math	2420	MATH A SHL	*
Basic Math	2421	DIPLOMA MATH PLUS	*
Basic Math	2421	MATH B	32
Basic Math	2421	MATH B SHL	8
Basic Math	2421	US HISTORY P PLUS	*
Basic Math	2488	CAHSEEPREP	*
Basic Math	2488	HSEEPREPEA	*
Basic Math	2488	HSEEPREPEB	*
Basic Math	2488	HSEEPREPMA	*
Basic Math	2488	HSEEPREPMB	*
Basic Math	2498	AP MATH A	*
Basic Math	2498	AP MATH B	*
Basic Math	2498	CAHSEE MTH	7
Basic Math	2498	CAHSEE REV MATH	27
Basic Math	2498	INT MATH A	38
Basic Math	2498	INT MATH B	125
Basic Math	2498	INTEGRTD MATH A	10
Basic Math	2498	INTEGRTD MATH B	36
Basic Math	2498	MASTDIBSLA	*
Basic Math	2498	MASTDIBSLB	*
Basic Math	2498	PRBLM SLVG STRATEG	*
Basic Math	6098	NUMERICS(MATH)	*
Basic Math	6098	SI MATH	*
Pre-Algebra	2424	ALGEBRA-PRE	9
Pre-Algebra	2424	PEP/PRE ALG B 8	*
Pre-Algebra	2424	PRE-ALGEBRA	14
Beginning Algebra	2403	ALG	94
Beginning Algebra	2403	ALG 1A	*
Beginning Algebra	2403	ALG 1A P	14
Beginning Algebra	2403	ALG 1B P	32
Beginning Algebra	2403	ALG 1P	65
Beginning Algebra	2403	ALG 1P (SEM2)	*
Beginning Algebra	2403	ALG A/B	*
Beginning Algebra	2403	ALG I EP	*
Beginning Algebra	2403	ALG I SHL P	13
Beginning Algebra	2403	ALG IP	247
Beginning Algebra	2403	ALG IP (SEM2)	*
Beginning Algebra	2403	ALGEBRA 1	34
Beginning Algebra	2403	ALGEBRA 1 B P	*
Beginning Algebra	2403	ALGEBRA A	143
Beginning Algebra	2403	ALGEBRA A SHEL	*
Beginning Algebra	2403	ALGEBRA B	58

Math Ranking	CBEDS	Course Title	N
Beginning Algebra	2403	ALGEBRA B SHEL	*
Beginning Algebra	2403	ALGEBRA I	115
Beginning Algebra	2403	ALGEBRA I - 9	182
Beginning Algebra	2403	ALGEBRA I P	13
Beginning Algebra	2403	ALGEBRA L	124
Beginning Algebra	2403	L.C. MATH	*
Beginning Algebra	2403	RSP ALGEBRA I	*
Beginning Algebra	2403	SEI ALG 1P	*
Beginning Algebra	2403	SEI ALG I P	13
Beginning Algebra	2403	SEI ALGEBRA A	9
Beginning Algebra	2403	SEI ALGEBRA B	*
Beginning Algebra	2418	ALGEBRA B IND STUD	*
Beginning Algebra	2418	IS ALG I	8
Beginning Algebra	2418	IS LV MTH IA	*
Beginning Algebra	2418	IS LV MTH IB	*
Beginning Algebra	2418	IS MATH	28
Beginning Algebra	2418	IS MATH A	*
Beginning Algebra	2418	IS MATH B	*
Beginning Algebra	2425	INT. MATH 1	*
Beginning Algebra	2425	INTEG MATH	13
Beginning Algebra	2425	INTEG MATH I	17
Beginning Algebra	2428	ALG	9
Beginning Algebra	2428	ALG STD 1A	*
Beginning Algebra	2428	ALG STD 1B	6
Beginning Algebra	2428	ALGEBRA A	98
Beginning Algebra	2428	ALGEBRA A - 9	22
Beginning Algebra	2428	ALGEBRA I - 9	*
Beginning Algebra	2428	ALGEBRA I P(A)	*
Beginning Algebra	2428	ALS	*
Beginning Algebra	2429	ALG	38
Beginning Algebra	2429	ALG B P (SEM1)	*
Beginning Algebra	2429	ALG STD 2A	*
Beginning Algebra	2429	ALG STD 2B	11
Beginning Algebra	2429	ALGEBRA B	254
Beginning Algebra	2429	ALGEBRA B - 9	40
Beginning Algebra	2429	ALGEBRA B P	7
Beginning Algebra	2429	ALGSTND 2 A ALT	*
Beginning Algebra	2429	ALGSTND 2 B ALT	*
Beginning Algebra	2429	ALST2BALT	*
Beginning Algebra	2498	ALGEBRA I REV	*
Beginning Algebra	6098	SI ALGEBRA I	*
Geometry	2405	FNCTNL GMTRY	148
Geometry	2405	GEO	432

Math Ranking	CBEDS	Course Title	N
Geometry	2405	GEOM HP	20
Geometry	2405	GEOM SHL P	*
Geometry	2405	GEOMETRY 9	*
Geometry	2405	GEOMETRY E	*
Geometry	2405	GEOMETRY P	427
Geometry	2405	GEOMETRY YL	*
Geometry	2405	GMTRY FNCTNL	19
Geometry	2405	GMTRY PLANE	74
Geometry	2405	GMTRY PLANE E	*
Geometry	2405	PLANE GEOMETRY	*
Geometry	2405	PLANE GMTRY	308
Geometry	2405	PLANE GMTRY 9	132
Geometry	2405	PLANE GMTRY H	31
Geometry	2405	SEI GEOM P	11
Geometry	2406	GEOMETRY	*
Geometry	2413	FNCTNL GMTRY	15
Geometry	2413	GEOM 1A	*
Geometry	2413	GEOM A P	20
Geometry	2413	GEOM B P	59
Geometry	2413	GEOM H A P	*
Geometry	2413	GEOM H B P	7
Geometry	2413	GEOM HP	*
Geometry	2413	GEOM L B P	*
Geometry	2413	GEOM ST 2A	6
Geometry	2413	GEOM ST 2B	*
Geometry	2413	GEOM STDS 2A P	*
Geometry	2413	GEOM STDS 2B P	6
Geometry	2413	GEOMETRY	344
Geometry	2413	GEOMETRY A	*
Geometry	2413	GEOMETRY A P	*
Geometry	2413	GEOMETRY B P	*
Geometry	2413	GEOMETRY H B P	*
Geometry	2413	GEOMETRY L B P	*
Geometry	2413	GEOMETRY P	111
Geometry	2413	GEOMETRY P-CLOSED SECTION	*
Geometry	2413	GEOMIB B P	*
Geometry	2413	GEOSTD2A P	22
Geometry	2413	GEOSTD2B P	54
Geometry	2413	GEOSTDS 2A	*
Geometry	2413	LOGIC(GEOM)	*
Geometry	2413	PLANE GMTRY	*
Geometry	2413	SEI GEOMP	*
Geometry	2426	INT. MATH 2	*

Math Ranking	CBEDS	Course Title	N
Geometry	2426	INTEG MATH II	20
Geometry	2498	GEOM ST 1A	12
Geometry	2498	GEOM STD	*
Geometry	2498	GEOM STDS 1A	*
Geometry	2498	GEOSTD 1A	10
Geometry	2498	GEOSTD 1B	27
Geometry	2498	GEOSTD1BL	*
Intermediate Algebra	2404	ALG	349
Intermediate Algebra	2404	ALG 2A	*
Intermediate Algebra	2404	ALG 2A P	56
Intermediate Algebra	2404	ALG 2B P	194
Intermediate Algebra	2404	ALG II HP	24
Intermediate Algebra	2404	ALG II P	414
Intermediate Algebra	2404	ALG II SHL P	*
Intermediate Algebra	2404	ALG IIHP	15
Intermediate Algebra	2404	ALG2 H A P	7
Intermediate Algebra	2404	ALG2 H B P	31
Intermediate Algebra	2404	ALG2ALP	*
Intermediate Algebra	2404	ALG2BLP	*
Intermediate Algebra	2404	ALG2IB B P	*
Intermediate Algebra	2404	ALG2MYP AP	*
Intermediate Algebra	2404	ALGEBRA 11 P EHS	*
Intermediate Algebra	2404	ALGEBRA 2	561
Intermediate Algebra	2404	ALGEBRA 2 A P	8
Intermediate Algebra	2404	ALGEBRA 2 B P	24
Intermediate Algebra	2404	ALGEBRA 2 H B P	11
Intermediate Algebra	2404	ALGEBRA 2A	*
Intermediate Algebra	2404	ALGEBRA II	873
Intermediate Algebra	2404	ALGEBRA II - A	*
Intermediate Algebra	2404	ALGEBRA II A	95
Intermediate Algebra	2404	ALGEBRA II B	*
Intermediate Algebra	2404	ALGEBRA II E	30
Intermediate Algebra	2404	Q2 ALG II P	*
Intermediate Algebra	2404	SEI ALG II P	*
Intermediate Algebra	2404	SEI ALG IIP	*
Intermediate Algebra	2460	MATHSTDIBSL B P	*
Statistics/Finite Math	2410	STA	13
Statistics/Finite Math	2410	STAT A P	*
Statistics/Finite Math	2410	STAT B P	11
Statistics/Finite Math	2410	STATISTICS	31
Statistics/Finite Math	2410	STATISTICS A P	*
Statistics/Finite Math	2410	STATISTICS B P	7
Statistics/Finite Math	2483	AP STATISTICS	65

Math Ranking	CBEDS	Course Title	N
Statistics/Finite Math	2483	AP STATISTICS A	17
Statistics/Finite Math	2483	AP STATISTICS B	*
Statistics/Finite Math	2483	STA	7
Statistics/Finite Math	2483	STAT AP AP	*
Statistics/Finite Math	2483	STAT AP BP	9
Statistics/Finite Math	2483	STATS AP B P	*
Pre-Calculus	2407	F	*
Pre-Calculus	2407	TRG	48
Pre-Calculus	2407	TRGPCALHAP	12
Pre-Calculus	2407	TRGPCALHBP	37
Pre-Calculus	2407	TRGPCALIBB	*
Pre-Calculus	2407	TRGPRECAL A P	7
Pre-Calculus	2407	TRGPRECAL B P	10
Pre-Calculus	2407	TRGPRECAL H A P	*
Pre-Calculus	2407	TRGPRECAL H B P	16
Pre-Calculus	2407	TRI	99
Pre-Calculus	2407	TRIG	257
Pre-Calculus	2407	TRIG/MATH ANAL HP	20
Pre-Calculus	2407	TRIG/MATH ANAL P	90
Pre-Calculus	2407	TRIG/MATH ANALY	369
Pre-Calculus	2407	TRIG/MATH ANALYSIS	24
Pre-Calculus	2407	TRIGPCALAP	26
Pre-Calculus	2407	TRIGPCALBP	68
Pre-Calculus	2407	TRP	*
Pre-Calculus	2408	ALGEBRA II	*
Pre-Calculus	2414	MATH ANAL E	29
Pre-Calculus	2414	MATH ANALYS E	33
Pre-Calculus	2414	MATH ANALYSIS	126
Pre-Calculus	2414	PRE-CALCULUS	20
Pre-Calculus	2414	PRE-CALCULUS HP	10
Pre-Calculus	2414	PRE-CALCULUS P	36
Calculus	2415	CALCULUS P	11
Calculus	2415	HONCALCULUSAB	17
Calculus	2415	HONCALCULUSBC	12
Calculus	2480	AP CALCULUS	21
Calculus	2480	AP CALCULUS AB	44
Calculus	2480	AP CALCULUS AB1	*
Calculus	2480	AP CALCULUS AB2	*
Calculus	2480	AP CALCULUS BC	13
Calculus	2480	CAL	29
Calculus	2480	CALC AB AP A P	*
Calculus	2480	CALC AB AP B P	8
Calculus	2480	CALCABAPAP	6

Math Ranking	CBEDS	Course Title	N
Calculus	2480	CALCABAPBP	16
Calculus	2480	CALCIBSL B	*
Calculus	2480	CALCULU AP	6
Calculus	2480	CALCULUS AP	11
Calculus	2480	MATHIBSLAP	*
Calculus	2480	MATHIBSLBP	*
Calculus	2481	AP CALCULUS BC	*
Calculus	2481	AP CALCULUS BC1	*
Calculus	2481	CAL	*
Calculus	2481	CALCBCAPBP	*
Total			10081

* between 1 and 4 students

Table 4. Math Ranking for Community College Math Courses

Math Rank	Course ID	Course Title	N
Basic Math	MATH-942	Arithmetic	1106
Basic Math	MATH-942A	Vocational Arithmetic: Whole Numbers	25
Basic Math	MATH-942B	Vocational Arithmetic: Fractions and Decimals	*
Basic Math	MATH-943X2	Review Arithmetic Topics	31
Pre-Algebra	MATH-952	Prealgebra	1531
Pre-Algebra	MATH-952A	Prealgebra: Integers	14
Pre-Algebra	MATH-952C	Prealgebra: Exponents and Linear Equations	*
Pre-Algebra	MATH-952D	Prealgebra: Decimals Percent and Ratios	*
Pre-Algebra	MATH-953X2	Review of Selected Prealgebra Topics	*
Beginning Algebra	MATH-090	Elementary Algebra	2845
Beginning Algebra	MATH-090A	Elementary Algebra Part A	*
Beginning Algebra	MATH-090B	Elementary Algebra Part B	*
Geometry	MATH-093	Plane Geometry	9
Intermediate Algebra	MATH-095	Intermediate Algebra	2532
Intermediate Algebra	MATH-095A	Intermediate Algebra Part A	8
Intermediate Algebra	MATH-095B	Intermediate Algebra Part B	*
Statistics/Finite Math	MATH-102	College Algebra	959
Statistics/Finite Math	MATH-108	Introduction to Probability and Statistics	200
Statistics/Finite Math	MATH-115	Ideas of Mathematics	119
Statistics/Finite Math	PSYCH-108	Statistics	17
Pre-Algebra	MATH 103	Plane Trigonometry	*
Pre-Calculus	MATH 151	Precalculus	*
Pre-Calculus	MATH-103	Plane Trigonometry	196
Pre-Calculus	MATH-151	Precalculus	247
Calculus	MATH-250	Single Variable Calculus I	158
Calculus	MATH-252	Multivariable Calculus	12
Linear Algebra	MATH-251	Single Variable Calculus II	47
Linear Algebra	MATH-265	Linear Algebra	*
Linear Algebra	MATH-266	Introduction to Ordinary Differential Equations	*
Total			10081

* between 1 and 4 students