Mathematics Program Review

2013-2014

Section I – Accomplishments and Status of 2012 Program Review Report

A. Last Year's Initiatives

We had four initiatives last year. All four required some sort of funding.

1) Expansion of SI program
    a. This was not funded through program review.
    b. The SI program was funded in part by a Title V grant, primarily for transfer courses.
    c. SI for Basic skills courses were funded by money from BSI.
    d. We would like for continued expansion of the program, and for it to be made permanent.
    e. Previous data has shown an increase in student success; we have not had more recent research in this area.
2) Access to Professional development
    a. This was not funded through program review.
    b. We have received some professional development through the faculty travel pool, BSI, and publisher-provided sources.
3) Enclosure of north end of SCI building
    a. This will be funded by the VC Foundation.
    b. Work has not been yet done.
4) Hiring of Student Services Assistant I (40%) for Math Center
    a. This was not funded.
    b. We do have a provisional employee hired by Sandy Hajas, which is supplemented by faculty volunteering hours in the Math Center.

B. Updates/accomplishments pertaining to any of the Student Success or Operating Goals from last year's report.

Updates/accomplishments:

1) We have increased our success and retention rates for students from the previous three years. We would like to continue to increase these rates. We would also like to see a narrowing of the gap for Hispanic and African-American students, particularly in terms of student success.
2) Our productivity declined slightly for this year, with fewer sections and yet more faculty. Our WSCH was down just slightly from our three-year average, but was still quite good compared to our targets. The department is very efficient, but did not see quite the overwhelming demand from the last several years, where almost every section was full (many with extra students).

Section II - Description

A. Description of Program/Department

The mathematics program provides strong emphasis on fundamental concepts and problem solving skills useful in a myriad of career paths. The study of both pure mathematics and applied mathematics provides skills useful in Actuarial Science, Astronomy, Biology, Chemistry, Computer Science, Digital Arts, Earth Sciences, Economics, Education, Engineering, Physical Sciences, Physics, Research, and the Social Sciences.

Degrees/Certificates

The Mathematics department offers courses are designed to articulate to UC and CSU for transfer students. The department also offers basic skills courses and courses that meet requirements for associate degrees and certificates. The department also now has an AD-T degree in Mathematics, which can be used by students to help transfer to CSU campuses.

B. Program/Department Significant Events (Strengths and Successes), and Accomplishments

1) We have a new degree, an AD-T in Mathematics. This will help students that are transferring to CSU campuses.
2) We hired three new full-time faculty members for this fall. We have also hired two new part-time faculty members. We have recently had two full-time retirements, a full-time faculty member moving into a dean position, and some part-time faculty leaving.
3) We have several new courses: Math V13A and B (a two-semester Intermediate Algebra sequence), Math V22 (Linear Algebra), and Math V23 (Differential Equations). We are in the process of developing other courses, and revising others.
4) We are also offering accelerated versions of our sequences, which have been successful.
5) We have reopened the Math Center.

C. 2013-2014 Estimated Costs/Gainful Employment – for Certificates of Achievement ONLY

	Cost		Cost		Cost		Cost
Enrollment Fees		Enrollment Fees					
Books/Supplies		Books/Supplies					
Total		Total		Total		Total	

D. Criteria Used for Admission

Students must meet the prerequisites for each individual course.

E. College Vision

Ventura College will be a model community college known for enhancing the lives and economic futures of its students and the community.

F. College Mission

At Ventura College, we transform students' lives, develop human potential, create an informed citizenry, and serve as the educational and cultural heart of our community. Placing students at the center of the educational experience, we serve a highly diverse student body by providing quality instruction and student support, focusing on associate degree and certificate completion, transfer, workforce preparation, and basic skills. We are committed to the sustainable continuous improvement of our college and its services.

G. College Core Commitments

Ventura College is dedicated to following a set of enduring Core Commitments that shall guide it through changing times and give rise to its Vision, Mission and Goals.

- Student Success
- Respect
- Integrity
- Quality
- Collegiality
- Access
- Innovation
- Diversity
- Service
- Collaboration
- Sustainability
- Continuous Improvement

H. Organizational Structure

President: Greg Gillespie

Executive Vice President:

Dean: Dan Kumpf

Department Chair: Alex Kolesnik

Faculty/Staff:

Name	**Adlman, Andrea**
Classification	Professor
Year Hired	1988
Years of Work-Related Experience	
Degrees/Credentials	B.S., M.A.

Name	Anderson, Lisa Whelan
Classification	Professor
Year Hired	1996
Years of Work-Related Experience	
Degrees/Credentials	B.S., M.S.

Name	Beard, Michelle
Classification	Professor
Year Hired	2006
Years of Work-Related Experience	
Degrees/Credentials	B.S., M.S.

Name	Beatty, Donna
Classification	Professor
Year Hired	2004
Years of Work-Related Experience	
Degrees/Credentials	A.A., B.A., M.S.

Name	Bennett, Jack
Classification	Assistant Professor
Year Hired	2013
Years of Work-Related Experience	
Degrees/Credentials	A.A., B.S., M.S., Ph.D.

Name	Bowen, Michael S.
Classification	Professor
Year Hired	1991
Years of Work-Related Experience	7.5 years industry experience
Degrees/Credentials	B.A., M.A.

Name	Bundy, Janine
Classification	Assistant Professor
Year Hired	2011
Years of Work-Related Experience	
Degrees/Credentials	B.S., M.B.A., M.S.

Name	Freixas, Marta M.
Classification	Professor
Year Hired	1981
Years of Work-Related Experience	
Degrees/Credentials	B.A., M.S.

Name	Frederick, Christopher
Classification	Assistant Professor
Year Hired	2013
Years of Work-Related Experience	
Degrees/Credentials	B.A., Ph.D.

Name	Kolesnik, Alexander
Classification	Associate Professor
Year Hired	2007
Years of Work-Related Experience	
Degrees/Credentials	B.S., M.Ed.

Name	Millea, Michelle
Classification	Professor
Year Hired	1992
Years of Work-Related Experience	7 years
Degrees/Credentials	B.S., M.S.,

Name	Matthews-Morales, Lydia
Classification	Professor
Year Hired	1991
Years of Work-Related Experience	
Degrees/Credentials	A.S., B.S., M.A.

Name	McCain, Michael T.
Classification	Professor
Year Hired	2005
Years of Work-Related Experience	
Degrees/Credentials	B.S., M.S.

Name	Petitfils, Ryan
Classification	Assistant Professor
Year Hired	2013
Years of Work-Related Experience	
Degrees/Credentials	B.A., M.S.

Name	Sha, Saliha
Classification	Assistant Professor
Year Hired	2011
Years of Work-Related Experience	
Degrees/Credentials	B.S., M.S., M.S., M.A., Ed.D.

Name	Stowers, Dorothy
Classification	Associate Professor
Year Hired	2008
Years of Work-Related Experience	
Degrees/Credentials	B.A., M.A., Ph.D.

Name	Yi, Peter
Classification	Professor
Year Hired	2006
Years of Work-Related Experience	
Degrees/Credentials	B.A., Ph.D.

Section IIIa – Data and Analysis

A. SLO Data

Last year was very busy in terms of course-level SLOs. We assessed a course-level SLO and the Institutional SLO related to Quantitative Reasoning for almost all of our courses. This meant that we had to edit the CSLOs, map them to an appropriate ISLO, come up with assessment measures and instruments, come up with assessment rubrics for both the CSLOs and ISLO, enter all of this into TracDat, carry out the assessment, tabulate the results and findings, discuss these results and findings, and come up with initiatives. All of this was also put into TracDat. Additionally, we developed a five-year rotational plan for all of our courses.

Some findings:

1) Students need to take an active part in their learning. Homework, discussion, and attendance are vital.
2) Working in groups works well for students.
3) It helps to use real-life applications and pertinent data.
4) Students need more practice.
5) Students' poor knowledge of Trigonometry was a hindrance in Precalculus and Calculus.

Initiatives:

1) Greater SI/tutoring funding.
2) Use SI tutoring in all sections of Math V21A.
3) Develop Maple/Mathematica workshops for students.
4) Increase student accountability to do homework.

We have not had enough time yet to enact all of the initiatives. We are seeing a greater use of SI for Calculus. We will see how this improves student success. We also hope for a greater use of other tutoring by students. The CAS workshops have not yet been developed.

B. Performance Data

1. Retention – Program and Course

MATH Comparative Summary

Fiscal Year	A	B	C	P CR	D	F	NP NC	W	Graded	I	Retention		Success	
FY10	1,597	1,500	1,605	318	716	1,309	161	2,110	9,316	*1*	7,206	77%	5,020	54%
Distribution %	*17%*	*16%*	*17%*	*3%*	*8%*	*14%*	*2%*	*23%*						
FY11	1,603	1,659	1,643	370	752	1,276	182	2,097	9,582	*0*	7,485	78%	5,275	55%
Distribution %	*17%*	*17%*	*17%*	*4%*	*8%*	*13%*	*2%*	*22%*						
FY12	1,775	1,657	1,777	411	772	1,273	200	2,145	10,010	*77*	7,865	79%	5,620	56%
Distribution %	*18%*	*17%*	*18%*	*4%*	*8%*	*13%*	*2%*	*21%*						
MATH Prior Three Year Average	**1,658**	**1,605**	**1,675**	**366**	**747**	**1,286**	**181**	**2,117**	**9,636**	***26***	**7,519**	**78%**	**5,305**	**55%**
	17%	***17%***	***17%***	***4%***	***8%***	***13%***	***2%***	***22%***						
FY13	1,870	1,803	1,757	27	805	1,458	13	1,799	9,588	*55*	7,788	81%	5,457	57%
Distribution %	*20%*	*19%*	*18%*	*0%*	*8%*	*15%*	*0%*	*19%*						
College Prior Three Year Average	***33%***	***20%***	***14%***	***3%***	***5%***	***10%***	***1%***	***14%***				***86%***		***70%***

Our program's retention rate had been below the college average. It is not an equitable comparison, as math is a subject that is usually challenging for students. This may make it the first course to be dropped when a student is in a difficult situation.
The good news is that our retention rate has been steadily climbing. It has increased by one or two percentage points each year for the last three years, and was 81% last year, which is getting very close to the college average of 86%.

MATH	**170100**	**1,870**	**1,803**	**1,757**	**27**	**805**	**1,458**	**13**	**1,799**	**9,588**	***55***	**7,788**	**81%**	**5,457**	**57%**
	Distribution %	***20%***	***19%***	***18%***	***0%***	***8%***	***15%***	***0%***	***19%***						
	Hispanic	779	960	980	10	511	872	2	979	5,121	*28*	4,142	81%	2,729	53%
	Distribution %	*15%*	*19%*	*19%*	*0%*	*10%*	*17%*	*0%*	*19%*						
	White	749	542	488	10	172	351	8	513	2,854	*20*	2,340	82%	1,789	63%
	Distribution %	*26%*	*19%*	*17%*	*0%*	*6%*	*12%*	*0%*	*18%*						
	Afr Amer	34	61	80	0	26	72	2	73	350	*2*	277	79%	175	50%
	Distribution %	*10%*	*17%*	*23%*	*0%*	*7%*	*21%*	*1%*	*21%*						
	Asian	121	83	52	1	26	37	0	70	390	*0*	320	82%	257	66%
	Distribution %	*31%*	*21%*	*13%*	*0%*	*7%*	*9%*	*0%*	*18%*						
	Filipino	58	55	51	1	22	32	0	49	268	*0*	219	82%	165	62%
	Distribution %	*22%*	*21%*	*19%*	*0%*	*8%*	*12%*	*0%*	*18%*						
	Amer Indian	33	24	21	1	12	14	0	29	135	*1*	106	79%	79	59%
	Distribution %	*24%*	*18%*	*16%*	*1%*	*9%*	*10%*	*0%*	*21%*						
	Other	96	78	85	4	36	80	1	86	470	*4*	384	82%	263	56%
	Distribution %	*20%*	*17%*	*18%*	*1%*	*8%*	*17%*	*0%*	*18%*						

College FY13 Retention and Success by Course, Ethnicity ***Program Review 2013 - 2014***

	A	B	C	P CR	D	F	NP NC	W	Graded	*Inc*	Retention	Success
FY13 Distribution %	***32%***	***22%***	***15%***	***3%***	***5%***	***9%***	***1%***	***14%***	**80,553**		**86%**	**71%**
Hispanic Distribution %	*26%*	*22%*	*17%*	*3%*	*6%*	*10%*	*1%*	*14*	41,063		86%	68%
White Distribution %	*40%*	*21%*	*12%*	*2%*	*3%*	*7%*	*0%*	*13*	25,846		87%	75%
Afr Amer Distribution %	*24%*	*17%*	*16%*	*2%*	*6%*	*16%*	*1%*	*18*	3,221		82%	59%
Asian Distribution %	*41%*	*22%*	*12%*	*4%*	*4%*	*5%*	*0%*	*11*	2,922		89%	79%
Filipino Distribution %	*35%*	*23%*	*15%*	*2%*	*4%*	*7%*	*0%*	*12*	2,549		88%	76%
Amer Indian Distribution %	*35%*	*22%*	*13%*	*3%*	*4%*	*8%*	*0%*	*14*	1,134		86%	73%
Other Distribution %	*35%*	*21%*	*13%*	*3%*	*4%*	*9%*	*0%*	*14*	3,818		86%	72%

The retention rates for different ethnic groups are all virtually identical, with no group deviating by more than two percentage points from the program average.

MATH	Course Detail															Fiscal Year = FY13								
CourseID	Course Title				A		B		C		P	CR		D		F		NP	NC	W	Graded		I		Retention		Success
MATHV01			310		275		266		5		143		317		4	320		1,661		21	1,341		81%		856		52%
Distribution %			*19%*		*17%*		*16%*		*0%*		*9%*		*19%*		*0%*	*19%*											
MATHV02			17		12		10		0		7		16		0	10		72		*0*	62		86%		39		54%
Distribution %			*24%*		*17%*		*14%*		*0%*		*10%*		*22%*		*0%*	*14%*											
MATHV03			336		384		444		5		230		451		5	447		2,314		*12*	1,867		81%		1,169		51%
Distribution %			*15%*		*17%*		*19%*		*0%*		*10%*		*19%*		*0%*	*19%*											
MATHV04			225		224		186		1		87		116		1	243		1,088		*5*	845		78%		636		58%
Distribution %			*21%*		*21%*		*17%*		*0%*		*8%*		*11%*		*0%*	*22%*											
MATHV05			108		94		84		0		28		64		0	118		498		*2*	380		76%		286		57%
Distribution %			*22%*		*19%*		*17%*		*0%*		*6%*		*13%*		*0%*	*24%*											
MATHV06				0	0		0		10		0		0		1	0		11		*0*	11		100%		10		91%
Distribution %			*0%*		*0%*		*0%*		*91%*		*0%*		*0%*		*9%*	*0%*											
MATHV09				6	9		8		0		9		4		0	9		45		*0*	36		80%		23		51%
Distribution %			*13%*		*20%*		*18%*		*0%*		*20%*		*9%*		*0%*	*20%*											
MATHV10			213		174		190		0		84		137		2	115		917		*2*	802		87%		577		63%
Distribution %			*23%*		*19%*		*21%*		*0%*		*9%*		*15%*		*0%*	*13%*											
MATHV11A				3	4		10		1		5		4		0	6		33		*0*	27		82%		18		55%
Distribution %			*9%*		*12%*		*30%*		*3%*		*15%*		*12%*		*0%*	*18%*											
MATHV11B				3	2		5		4		4		1		0	0		19		*0*	19		100%		14		74%
Distribution %			*16%*		*11%*		*26%*		*21%*		*21%*		*5%*		*0%*	*0%*											
MATHV20			45		50		55		0		26		28		0	60		264		*0*	204		77%		150		57%
Distribution %			*17%*		*19%*		*21%*		*0%*		*10%*		*11%*		*0%*	*23%*											
MATHV21A			80		67		68		0		43		68		0	93		422		*3*	329		78%		215		51%
Distribution %			*19%*		*16%*		*16%*		*0%*		*10%*		*16%*		*0%*	*22%*											
MATHV21B			32		49		61		0		23		15		0	62		242		*0*	180		74%		142		59%
Distribution %			*13%*		*20%*		*25%*		*0%*		*10%*		*6%*		*0%*	*26%*											
MATHV21C			36		17		12		0		9		7		0	10		91		*0*	81		89%		65		71%
Distribution %			*40%*		*19%*		*13%*		*0%*		*10%*		*8%*		*0%*	*11%*											
MATHV24			25		27		12		0		3		4		0	4		75		*0*	71		95%		64		85%
Distribution %			*33%*		*36%*		*16%*		*0%*		*4%*		*5%*		*0%*	*5%*											
MATHV35			27		30		22		0		5		16		0	21		121		*0*	100		83%		79		65%
Distribution %			*22%*		*25%*		*18%*		*0%*		*4%*		*13%*		*0%*	*17%*											
MATHV38			22		18		12		0		1		3		0	7		63		*0*	56		89%		52		83%
Distribution %			*35%*		*29%*		*19%*		*0%*		*2%*		*5%*		*0%*	*11%*											
MATHV40				19	15		12		0		8		4		0	22		80		*0*	58		73%		46		58%
Distribution %		*24%*			*19%*		*15%*		*0%*		*10%*		*5%*		*0%*	*28%*											
MATHV44		339			318		261		1		74		192		0	213		1,409		*10*	1,195		85%		919		65%
Distribution %		*24%*			*23%*		*19%*		*0%*		*5%*		*14%*		*0%*	*15%*											
MATHV46				24	34		39		0		16		11		0	39		163		*0*	124		76%		97		60%
Distribution %		*15%*			*21%*		*24%*		*0%*		*10%*		*7%*		*0%*	*24%*											
FY13		**1,870**			**1,803**		**1,757**		**27**		**805**		**1,458**		**13**	**1,799**		**9,588**		***55***	**7,788**		**81%**		**5,457**		**57%**
Distribution %		***20%***			***19%***		***18%***		***0%***		***8%***		***15%***		***0%***	***19%***											

The retention rates for all of our classes seem to be fairly close as well. A few classes do better, but we seem to be very consistent among different courses and ethnic groups.
I think we could continue to increase our retention rates. Several possible ways to increase retention might be:

1) Develop and implement a better system of matriculation and assessment.
2) Identify students that are having difficulty early. If we can get them help sooner, they may end up staying with the class.
3) Identify students that will not be successful before the census date, so we may be able to get students to drop and not count against our retention rate.
4) Use the early alert system effectively.
5) Provide more SI and regular tutoring.
6) Provide more help to students through the Math Center.

2. Success – Program and Course

MATH Comparative Summary

Fiscal Year	A	B	C	P CR	D	F	NP NC	W	Graded	I	Retention		Success	
FY10	1,597	1,500	1,605	318	716	1,309	161	2,110	9,316	1	7,206	77%	5,020	54%
Distribution %	17%	16%	17%	3%	8%	14%	2%	23%						
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Distribution %	18%	17%	18%	4%	8%	13%	2%	21%						
MATH Prior Three Year Average	**1,658**	**1,605**	**1,675**	**366**	**747**	**1,286**	**181**	**2,117**	**9,636**	**26**	**7,519**	**78%**	**5,305**	**55%**
	17%	**17%**	**17%**	**4%**	**8%**	**13%**	**2%**	**22%**						
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Distribution %	20%	19%	18%	0%	8%	15%	0%	19%						
College Prior Three Year Average	**33%**	**20%**	**14%**	**3%**	**5%**	**10%**	**1%**	**14%**				**86%**		**70%**

The success rates for math are significantly below the college average. It is not appropriate to compare math to the rest of the college. Math is a very challenging subject. It is common for math success rates to be below those of other courses at most educational institutions.

The success rates for math have been consistently rising for the last three years. We are now at 57%, rising by one percentage point each year as compared to the previous three years. This is a great trend. We hope to continue this.

MATH Course Detail — Fiscal Year = FY13

CourseID	Course Title	A	B	C	P CR	D	F	NP NC	W	Graded	I	Retention		Success	
MATHV01		310	275	266	5	143	317	4	320	1,661	21	1,341	81%	856	52%
Distribution %		19%	17%	16%	0%	9%	19%	0%	19%						
MATHV02		17	12	10	0	7	16	0	10	72	0	62	86%	39	54%
Distribution %		24%	17%	14%	0%	10%	22%	0%	14%						
MATHV03		336	384	444	5	230	451	5	447	2,314	12	1,867	81%	1,169	51%
Distribution %		15%	17%	19%	0%	10%	19%	0%	19%						
MATHV04		225	224	186	1	87	116	1	243	1,088	5	845	78%	636	58%
Distribution %		21%	21%	17%	0%	8%	11%	0%	22%						
MATHV05		108	94	84	0	28	64	0	118	498	2	380	76%	286	57%
Distribution %		22%	19%	17%	0%	6%	13%	0%	24%						
MATHV06		0	0	0	10	0	0	1	0	11	0	11	100%	10	91%
Distribution %		0%	0%	0%	91%	0%	0%	9%	0%						
MATHV09		6	9	8	0	9	4	0	9	45	0	36	80%	23	51%
Distribution %		13%	20%	18%	0%	20%	9%	0%	20%						
MATHV10		213	174	190	0	84	137	2	115	917	2	802	87%	577	63%
Distribution %		23%	19%	21%	0%	9%	15%	0%	13%						
MATHV11A		3	4	10	1	5	4	0	6	33	0	27	82%	18	55%
Distribution %		9%	12%	30%	3%	15%	12%	0%	18%						
MATHV11B		3	2	5	4	4	1	0	0	19	0	19	100%	14	74%
Distribution %		16%	11%	26%	21%	21%	5%	0%	0%						
MATHV20		45	50	55	0	26	28	0	60	264	0	204	77%	150	57%
Distribution %		17%	19%	21%	0%	10%	11%	0%	23%						
MATHV21A		80	67	68	0	43	68	0	93	422	3	329	78%	215	51%
Distribution %		19%	16%	16%	0%	10%	16%	0%	22%						
MATHV21B		32	49	61	0	23	15	0	62	242	0	180	74%	142	59%
Distribution %		13%	20%	25%	0%	10%	6%	0%	26%						
MATHV21C		36	17	12	0	9	7	0	10	91	0	81	89%	65	71%
Distribution %		40%	19%	13%	0%	10%	8%	0%	11%						
MATHV24		25	27	12	0	3	4	0	4	75	0	71	95%	64	85%
Distribution %		33%	36%	16%	0%	4%	5%	0%	5%						
MATHV35		27	30	22	0	5	16	0	21	121	0	100	83%	79	65%
Distribution %		22%	25%	18%	0%	4%	13%	0%	17%						
MATHV38		22	18	12	0	1	3	0	7	63	0	56	89%	52	83%
Distribution %		35%	29%	19%	0%	2%	5%	0%	11%						

MATHV40		19	15	12	0	8	4	0	22	80	0	58	73%	46	58%
Distribution %	24%		19%	15%	0%	10%	5%	0%	28%						
MATHV44	339		318	261	1	74	192	0	213	1,409	10	1,195	85%	919	65%
Distribution %	24%		23%	19%	0%	5%	14%	0%	15%						
MATHV46		24	34	39	0	16	11	0	39	163	0	124	76%	97	60%
Distribution %	15%		21%	24%	0%	10%	7%	0%	24%						
FY13	**1,870**		**1,803**	**1,757**	**27**	**805**	**1,458**	**13**	**1,799**	**9,588**	**55**	**7,788**	**81%**	**5,457**	**57%**
Distribution %	**20%**		**19%**	**18%**	**0%**	**8%**	**15%**	**0%**	**19%**						

We do have some specific courses with higher success rates, some even above the college average. The specific courses with low success rates are Math V01, Math V03, and Math V21A. We need to create initiatives to improve student success in these courses. If we could get success rates to even get to 60%, this would greatly help the program and its students.

We have also identified that cuts to categorical programs, such as EAC and tutoring have had a negative impact on our students. We believe that funding to these programs needs to be restored, and that the programs should be expanded. This would improved success rates for our students, and other students at Ventura College.

MATH	**170100**	**1,870**		**1,803**	**1,757**	**27**	**805**	**1,458**	**13**	**1,799**	**9,588**	**55**	**7,788**	**81%**	**5,457**	**57%**
	Distribution %	***20%***		***19%***	***18%***	***0%***	***8%***	***15%***	***0%***	***19%***						
	Hispanic	779		960	980	10	511	872	2	979	5,121	28	4,142	81%	2,729	53%
	Distribution %	*15%*		*19%*	*19%*	*0%*	*10%*	*17%*	*0%*	*19%*						
	White	749		542	488	10	172	351	8	513	2,854	20	2,340	82%	1,789	63%
	Distribution %	*26%*		*19%*	*17%*	*0%*	*6%*	*12%*	*0%*	*18%*						
	Afr Amer		34	61	80	0	26	72	2	73	350	2	277	79%	175	50%
	Distribution %	*10%*		*17%*	*23%*	*0%*	*7%*	*21%*	*1%*	*21%*						
	Asian	121		83	52	1	26	37	0	70	390	0	320	82%	257	66%
	Distribution %	*31%*		*21%*	*13%*	*0%*	*7%*	*9%*	*0%*	*18%*						
	Filipino		58	55	51	1	22	32	0	49	268	0	219	82%	165	62%
	Distribution %	*22%*		*21%*	*19%*	*0%*	*8%*	*12%*	*0%*	*18%*						
	Amer Indian		33	24	21	1	12	14	0	29	135	1	106	79%	79	59%
	Distribution %	*24%*		*18%*	*16%*	*1%*	*9%*	*10%*	*0%*	*21%*						
	Other		96	78	85	4	36	80	1	86	470	4	384	82%	263	56%
	Distribution %	*20%*		*17%*	*18%*	*1%*	*8%*	*17%*	*0%*	*18%*						

College FY13 Retention and Success by Course, Ethnicity ***Program Review 2013 - 2014***

	A	B	C	P CR	D	F	NP NC	W	Graded	*Inc*	Retention	Success
FY13 Distribution %	***32%***	***22%***	***15%***	***3%***	***5%***	***9%***	***1%***	***14%***	**80,553**		**86%**	**71%**
Hispanic Distribution %	*26%*	*22%*	*17%*	*3%*	*6%*	*10%*	*1%*	*14*	41,063		86%	68%
White Distribution %	*40%*	*21%*	*12%*	*2%*	*3%*	*7%*	*0%*	*13*	25,846		87%	75%
Afr Amer Distribution %	*24%*	*17%*	*16%*	*2%*	*6%*	*16%*	*1%*	*18*	3,221		82%	59%
Asian Distribution %	*41%*	*22%*	*12%*	*4%*	*4%*	*5%*	*0%*	*11*	2,922		89%	79%
Filipino Distribution %	*35%*	*23%*	*15%*	*2%*	*4%*	*7%*	*0%*	*12*	2,549		88%	76%
Amer Indian Distribution %	*35%*	*22%*	*13%*	*3%*	*4%*	*8%*	*0%*	*14*	1,134		86%	73%
Other Distribution %	*35%*	*21%*	*13%*	*3%*	*4%*	*9%*	*0%*	*14*	3,818		86%	72%

The success rates in math for Hispanic and African-American students are significantly below the program averages. This is also true for the college as a whole. We have several grants at the college that are designed to work on improving these differences. We need to also address this using initiatives specific to math.

3. Program Completion – for "Programs" with Degrees/Certificates Only

Our degree is in its first year. We will look at program completion data in years to follow.

C. Operating Data

1. Demographics - Program and Course

Course	Year or Title	Hispanic	White	Asian	Af Am	Pac I	Filipino	Nat Am	Other	Female	Male	Other	Avg Age
MATH	FY10	4,198	3,448	291	304	69	260	100	649	4,883	4,411	25	25
		45%	*37%*	*3%*	*3%*	*1%*	*3%*	*1%*	*7%*	*52%*	*47%*	*0%*	
MATH	FY11	4,579	3,246	386	331	61	319	151	514	5,104	4,474	9	25
		48%	*34%*	*4%*	*3%*	*1%*	*3%*	*2%*	*5%*	*53%*	*47%*	*0%*	
MATH	FY12	4,953	3,317	385	347	54	304	141	509	5,255	4,710	45	24
		50%	*33%*	*4%*	*3%*	*1%*	*3%*	*1%*	*5%*	*53%*	*47%*	*0%*	
MATH	**Prior 3 Year Average**	**4,577**	**3,337**	**354**	**327**	**61**	**294**	**131**	**557**	**5,081**	**4,532**	**26**	**25**
		47%	***35%***	***4%***	***3%***	***1%***	***3%***	***1%***	***6%***	***53%***	***47%***	***0%***	
MATH	FY13	5,121	2,854	390	350	55	268	135	415	5,044	4,477	67	24
		53%	*30%*	*4%*	*4%*	*1%*	*3%*	*1%*	*4%*	*53%*	*47%*	*1%*	
College	**Prior 3 Year Average**	**39,472**	**32,043**	**2,916**	**3,327**	**620**	**2,607**	**1,208**	**5,302**	**47,370**	**39,872**	**253**	**26**
		45%	***37%***	***3%***	***4%***	***1%***	***3%***	***1%***	***6%***	***54%***	***46%***	***0%***	
College	**FY13**	**41,063**	**25,846**	**2,922**	**3,221**	**455**	**2,549**	**1,134**	**3,363**	**43,161**	**36,897**	**495**	**24**

The demographics of our program and its courses mirror the college as a whole. Traditionally, and in the last year, the percentage makeup for each ethnic group is nearly identical for our program as compared to the college. The same is true for gender and age of our students as well. 53% of our students are Hispanic, greatly exceeding the 30% of our students that are white. 53% of our students are female, and the average age is 24, with a trend that indicates a slight decrease in average age.

2. Budget

x Program members have reviewed the budget data.

☐ No comments or requests to make about the budget

Program Review Expenses for Mathematics						Funds 111, 113, 114, 128*, 445
		FY10	FY11	FY12	FY13	Bud FY14
Total Program Review Expenses by Major Budget Categories for Mathematics						
1	FT Faculty	1,480,156	1,812,431	1,986,504	1,911,306	2,008,812
2	PT Faculty	818,358	823,512	800,264	928,836	893,823
3	Classified	7,757	4,087	5,701	0	3,836
4	Student Hourly	30,975	27,721	25,779	2,931	2,853
7	Supplies	896	2,136	7,166	651	1,930
8	Services	1,390	3,542	1,362	555	850
9	Equipment	2,499	24,092	4,075	0	0

Our budget appears to have increased significantly over the last three years. The increase is almost entirely in FT faculty salary, with the biggest jump being from 2010 to 2011. This seems like a budget anomaly, as we have had only one growth position in the last 5 years. We have described this anomaly in previous program reviews. As before, we think this represents a computational error in the budget.

3. Productivity – Program and Course

MATH	College WSCH Ratio: WSCH / (FT FTE+PT FTE+XL FTE)								
Course	Title	FY10	FY11	FY12	3 Yr Avg	FY13	% Change	Dist Goal	% Goal
MATHV01	Elementary Algebra,	601	608	594	601	564	-1%	550	102%
MATHV01A	Elementary Algebra: Module I,	0	0	0	0	0	0%	550	0%
MATHV01B	Elementary Algebra: Module II,	0	0	0	0	0	0%	550	0%
MATHV01C	Elementary Algebra: Module III,	0	0	0	0	0	0%	550	0%
MATHV01D	Elementary Algebra: Module IV,	0	0	0	0	0	0%	550	0%
MATHV01E	Elementary Algebra: Module V,	0	0	0	0	0	0%	550	0%
MATHV02	Geometry,	570	499	500	529	540	-5%	550	98%
MATHV03	Intermediate Algebra,	594	618	608	607	605	0%	550	110%
MATHV03A	Intermed Algebra: Module I,	0	0	0	0	0	0%	550	0%
MATHV03B	Intermed Algebra: Module II,	0	0	0	0	0	0%	550	0%
MATHV03C	Intermed Algebra: Module III,	0	0	0	0	0	0%	550	0%
MATHV03D	Intermed Algebra: Module IV,	0	0	0	0	0	0%	550	0%
MATHV03E	Intermed Algebra: Module V,	4	11	11	9	0	29%	550	0%
MATHV04	College Algebra,	605	599	608	604	609	1%	550	111%
MATHV05	Plane Trigonometry,	601	572	584	586	569	0%	550	103%
MATHV06	Math Summer Bridge,	0	0	256	256	201	0%	550	37%
MATHV09	Beginning Mathematics,	545	523	577	548	617	5%	550	112%
MATHV09A	Beginning Math: Module I,	0	0	0	0	0	0%	550	0%
MATHV09B	Beginning Math: Module II,	0	0	0	0	0	0%	550	0%
MATHV09C	Beginning Math: Module III,	0	0	0	0	0	0%	550	0%
MATHV10	Prealgebra,	568	564	585	572	583	2%	550	106%
MATHV10A	Prealgebra: Module I,	0	0	0	0	0	0%	550	0%
MATHV10B	Prealgebra: Module II,	0	0	0	0	0	0%	550	0%
MATHV10C	Prealgebra: Module III,	0	0	0	0	0	0%	550	0%
MATHV11A	Elementary Algebra: 1st Half,	566	634	0	600	532	-100%	550	97%
MATHV11B	Elementary Algebra: 2nd Half,	274	360	0	317	326	-100%	550	59%
MATHV13A	Intermediate Algebra: 1st Half,	0	0	0	0	0	0%		
MATHV20	Precalculus Mathematics,	568	493	494	518	486	-5%	550	88%
MATHV21A	Calculus/Analytic Geometry I,	618	612	642	624	624	3%	550	113%
MATHV21B	Calculus/Analytic Geometry II,	497	529	454	494	512	-8%	550	93%
MATHV21C	Multivariable Calculus,	668	675	713	685	683	4%	550	124%
MATHV22	Intro to Linear Algebra,	0	0	0	0	0	0%		
MATHV23	Intro Differential Equations,	0	0	0	0	0	0%		
MATHV24	Diff Equations/Linear Algebra,	578	533	638	583	555	9%	550	101%
MATHV30	Math for Health Care Personnel,	488	533	450	495	0	-9%	550	0%
MATHV35	Interm Algebra: Health Care,	375	503	476	457	450	4%	550	82%
MATHV38	Math:Elementry School Teachers,	473	443	495	471	473	5%	550	86%
MATHV40	Math Topics:College Students,	485	545	595	542	400	10%	550	73%
MATHV44	Elementary Statistics,	589	628	656	624	633	5%	550	115%
MATHV46	Applied Calculus,	0	0	533	533	485	0%	550	88%
MATHV46A	Applied Calculus I,	534	569	570	555	0	3%	550	0%
MATHV90	Directed Studies: Mathematics,	0	0	0	0	0	0%	550	0%
	Annual WSCH Ratio for MATH	**577**	**585**	**592**	**585**	**581**			

The productivity for our program has traditionally been extremely high. We have served great numbers of students, with very few sections not completely full. Our WSCH greatly exceeds that of the college, and we are one of the most productive programs. This last year our productivity fell off slightly, but it was still well in line with our three-year average.

We do have some courses that have greater productivity than others. The courses which are below the college target are Math V06, Math V11B, Math V20, Math V21B, Math V35, Math V38, Math V40, and Math V46.
Math V06 is a summer bridge program that was grant-funded, but no longer offered. The department is looking at ways of making this course more successful.
Math V11B is the second half of the Beginning Algebra two-semester sequence. Enrollment is limited primarily to students that finished Math V11A successfully. This limits the enrollment and thus hurts productivity. Only one section of the course is offered, so this has a minimal impact on the program productivity.
Math V20 has lost some of its popularity in the last few years. We now have a lower unit alternative that satisfies the prerequisite for Math V21A, Calculus. We have been offering fewer sections of Math V20 as a result. We are also considering offering a new course which would combine Precalculus and Trigonometry, in the hopes that this would revive the popularity of this course.
Math V21B is the second semester of the Calculus sequence. Our success numbers in Math V21A have been low, which lowers the efficiency of Math V21B. We hope that this is rectified with some of the initiatives we have proposed for Math V21A.
The remaining four courses, Math V35, Math V38, Math V40, and Math V46 are specialized courses, which we offer only 1-2 sections of each per semester. They are needed to fulfill certain niche groups at our college. Because the number of sections is low, our overall productivity remains high.
There are 3 courses where the WSCH exceeds what we would like, meaning we should probably be increasing the number of sections offered. Those are Math V21A, Math V21C, and Math V44. We hope to add a section of each of those classes once per year for the future.

D. Resources

1. Faculty

MATH Productivity Measures	FY10	FY11	FY12	3 Yr Avg	FY13	Change
Sections,	246	258	264	256	242	-5%
Census,	9,425	9,667	10,005	9,699	10,005	-2%
FTES,	1,270	1,316	1,377	1,321	1,374	4%
FT Faculty,	13.00	15.33	16.30	14.88	13.66	-8%
PT Faculty,	19.26	17.73	17.95	18.31	21.41	17%
XL Faculty,	0.78	0.68	0.67	0.71	0.37	-48%
Total Faculty,	33.05	33.75	34.91	33.90	35.45	5%

The FTEF for math has been fairly stable in the last three years. It has been increasing slightly, which is contrary to the trend at the college. This has been primarily due to the continued growth and productivity of math, while there has been a decline in sections offered and students served by the college as a whole. Our productivity has remained high.

We have had many retirements, sabbatical and load bank leave, and faculty leaving in the last several years. This has meant that we have had to hire temporary full-time faculty, tenure-track full-time faculty, and part-time faculty. Hiring part-time faculty has been

particularly difficult in the last few years, as the pool of applicants is both small and weak. We are competing with our two sister colleges for applicants from that pool. Many of our faculty members teach at other colleges and universities, making hiring and scheduling difficult.

We hope to maintain some stability in our faculty for the next few years. We are also trying to communicate with educational partners in the area, in the hopes of finding more applicants for our part-time hiring pool.

2. Classified Staff

Our classified and student hourly budget has been shrunk considerably over the last few years. This has impacted the level of service that faculty and students in our department receive. The classified and student workers in our division work extremely hard to help faculty and students, but we simply do not have enough staff to cover a division of our size. It is our hope that adequate staffing will return as California restores adequate levels of funding for our college district. We will be patient in the meantime.

3. Inventory

We have a fairly decent inventory of equipment in the department, but much of this is past its expected life span. The equipment has not had adequate regular maintenance. In some cases, it was not optimally installed. We hope to see a major technology refresh, not just for our department but for the college as a whole. It is long past due. We understand that the status of the budget has meant that such a major refresh has not been possible in the last few years. As the budget situation continues to improve, the technology refresh should be a top priority.

All of the computers in our building are long overdue to be replaced. Some computers have simply ceased to function effectively, which can be frustrating. Faculty and students are not able to work productively with outdated equipment. We also need to replace other outdated equipment, such as printers, computer projectors, document cameras, overhead projectors, etc.

We also hope that equipment will be better maintained in the future. The college IT department is also understaffed, meaning that they are unable to always respond quickly when problems develop with our equipment. They also cannot quickly install needed software. We have several purchased pieces of software that have yet to be installed on computers in our building. The college needs to expand the budget for IT and maintenance.

4. Facilities or other Resource Requests

We are not making any new requests this year. We are anxiously awaiting the completion of some earlier facility requests.

5. Combined Initiatives

All of our initiatives are meant to address both completion and success rates for our students.

E. Other Program/Department Data

Sem	Yr	DE?	Basic Skills Success	Retention	Transfer Success	Retention	All success	retention
Summer	13	N	60.5	90.7	69.2	83.6	67.2	84.6
Spring	13	N	61.9	85.1	59.3	77.8	56	79.2
Fall	12	N	61.9	89.3	59.7	81.8	56.1	82.7
Summer	12	N	63.2	84.8	69.6	83	65.7	84.8
Summer	12	Y			50.3	78.5	44.2	74.9
Spring	12	N	53.8	77.5	55.4	74.2	53	75.2
Spring	12	Y	64.9	94.6	44.2	64.7	40.6	65.2
Fall	11	N	65.7	91.2	58.9	77.7	58	80.2
Fall	11	Y	62.9	80	38.6	65.2	40.8	67.2
Summer	11	N	84.4	93.4	67	81.5	66.7	84
Summer	11	Y	39.5	63.8	44.7	69.6	39.5	63.8
Spring	11	N	63.1	84	56.2	73.2	54.4	75.4
Spring	11	Y	58.1	83.9	35.8	72.1	38.4	72.4
Fall	10	N	55.2	85.1	58.7	79	55.8	80
Fall	10	Y	67.5	85	38.9	70.4	41	67.6

The data table above represents the success and retention for our department for the last three years, disaggregated by semester, type of course (basic skills, transfer-level, and all), and modality of teaching (distance education or not).
The data suggests that our summer success and retention is much higher than spring/fall, and that our distance education classes have lower success and retention rates than those that were not distance education.
Our concerns relate specifically to success and retention rates for our transfer-level distance education classes. We may wish to consider how we could increase these rates, or perhaps decide that distance education is not compatible with transfer-level math classes. We are now experimenting with one to two hours of weekly face-to-face interaction in our distance education courses. We will reexamine the success and retention rates for these sections. We may develop additional initiatives to address this issue.
We see encouraging trends in the data, with continuous improvement in both success and retention. We are also encouraged by the 2012-2013 data for both basic skills and transfer-level courses, with both retention and success rates being in line with the college overall.

Section IIIb – Other Program Goals and Initiatives

A. Innovation

We are always looking for new ways to be innovative. Over the years we have added netbooks, smartboards, clickers, and other new technology into our classrooms. We have used software such as Maple, Mathematica, Minitab, StatCrunch, StatCato, SAS, and SPSS. We will continue to look for new ways to incorporate the latest technology into the math classroom. We are hoping to purchase some smartpens this year to include pencasting for our students. We hope that the college can continue to add staff in instructional technology, to promote technological innovation in the classroom, and to enhance Distance Education for Ventura College.

B. Regulations/Safety

We hope that Ventura College can continue to develop policy that promotes safety on campus, for all administrators, faculty, staff, and students. Our program will adhere to all regulations and policies related to safety. Promoting a safe and welcoming environment for all on campus is a very important goal.

C. Standards for Math and Statistics

We will continue to adopt best teaching practices in our math and statistics classrooms, incorporating standards developed for community college math instruction by AMATYC (Crossroads) and for statistics education by ASA (GAISE).

D. Professional Development

Our faculty will continue to travel to math and statistics conferences, getting a glimpse at the latest in new technology and best teaching practices. The faculty brings back those ideas for all in the department, and to the campus community as well. We also will continue to bring professional development to the campus, and attend flex events sponsored by other campus groups.

Section IV – Program Vitality (Academic Senate Approved Self-Evaluation)

Rubric for Instructional Program Vitality-Academic (non-CTE)

The purpose of this rubric is to aid a program in thoughtful, meaningful and reflective self-evaluation. This rubric is also a defensible and objective way at looking at program viability and efficacy. This rubric should not be used as the mechanism to justify funding requests or for resource allocation. Lastly, a low score on this rubric does not preclude a program from requesting documented and necessary resource requests in other parts of this program review document.

Academic programs:

Point Value	Element	Score
Up to 6	Enrollment demand [1]	5

[1] Enrollment demand is determined by the ability to fill classes.

	A "6" would be the ability to fill 100% of sections prior to the start of the semester.	
	A "5" would be the ability to fill 95% or greater of class sections prior to the start of the semester for the past two terms.	
	A "4" would be the ability to fill 90% or greater of class sections prior to the start of a semester for the past two terms.	
	A "3" would be the ability to fill 85% or greater of class sections prior to the start of a semester for the past two terms.	
	A "2" would be the ability to fill 80% or greater of class sections prior to the start of a semester for the past two terms.	
	A "1" would be the ability to fill 75% or greater of class sections prior to the start of a semester for the past two terms.	
	A "0" would be the ability to fill less than 75% of class sections prior to the start of a semester for the past two terms.	

	Sufficient capital / human resources to maintain the program, as defined by:	
Up to 3	**Ability to find qualified instructors**	3
	A "3" would indicate that no classes have been canceled due to the inability to find qualified instructors.	
	A "2" would indicate that rarely but occasionally have classes been canceled due to the inability to find qualified instructors.	
	A "1" would indicate that a significant number of sections in the past year have been canceled due to the inability to find qualified instructors.	
	A "0" would indicate that classes are not even scheduled due to the inability to find qualified instructors.	
Up to 3	**Financial resources, equipment, space**	3
	A "3" would indicate that the program is fully supported with regards to dedicated class / lab space, supplies and equipment.	
	A "2" would indicate that the program is partially supported with regards to dedicated class / lab space, supplies and equipment	
	A "1" would indicate that the program is minimally supported with regards to dedicate class / lab space, supplies and equipment.	
	A "0" would indicate that there is no college support with regards to class / lab space, supplies and equipment.	

Up to 4	**Agreed-upon productivity rate** [2]	4
	A "4" would indicate that a program has met or exceeded its productivity rate.	
	A "3" would indicate that a program is at 90% or greater of its productivity rate.	
	A "2" would indicate that a program is at 80% or greater of its productivity rate.	
	A "1" would indicate that a program is at 70% or greater of its productivity rate.	
	A "0" would indicate that a program is at less than 70% of its productivity rate.	

Up to 4	**Course completion rate** [3]	1
	A "4" would indicate that the program's course completion rate is greater than 5 percentage points or greater than most recent college-wide course completion rate metric found in the annual "VC Institutional Effectiveness Report."	
	A "3" would indicate the program's course completion rate is equal to or greater than the most recent college-wide course completion rate metric found in the annual "VC Institutional Effectiveness Report."	
	A "2" would indicate that a program's course completion rate is up to 2 percentage points less than most recent college-wide course completion rate metric found in the annual "VC Institutional Effectiveness Report."	
	A "1" would indicate that a program's course completion rate is up to 5 percentage points less than most recent college-wide course completion rate metric found in the annual "VC Institutional Effectiveness Report."	

[2] Productivity rate is defined as **WSCH/FTEF** as determined by the program faculty at the college.
[3] As defined by the RP Group, the course completion rate is the "percentage of students who do not withdraw from class and who receive a valid grade."

	A "0" would indicate that a program's course completion rate is greater than 5 percentage points less than most recent college-wide course completion rate metric found in the annual "VC Institutional Effectiveness Report."	

Up to 3	**Success rate** [4]	0
	A "3" would indicate that the sum of the program's course success rates for the past academic year is greater than the most recent college-wide course success rate metric found in the annual "VC Institutional Effectiveness Report."	
	A "2" would indicate that the sum of the program's success rates for the past academic year is within 4 percentage points of the most recent college-wide course success rate metric found in the annual "VC Institutional Effectiveness Report."	
	A "1" would indicate that the sum of the program's success rates for the past academic year is within 8 percentage points of the most recent college-wide course success rate metric found in the annual "VC Institutional Effectiveness Report."	
	A "0" would indicate that the sum of the program's success rates for the past academic year is lesser than 8 percentage points of the most recent college-wide course success rate metric found in the annual "VC Institutional Effectiveness Report."	

Up to 3	**Ongoing and active participation in SLO assessment process**	3
	A "3" would indicate that all required courses, programs and institutional level SLOs as indicated by the programs SLO mapping document found in TracDat have been assessed on a regular and robust manner within the past academic year.	
	A "2" would indicate that 95% of all required courses, programs and institutional level SLOs as indicated by the program's SLO mapping document have been assessed on a regular and robust manner within the past academic year.	
	A "1" would indicate that 90% of all required courses, programs and institutional level SLOs as indicated by the program's SLO mapping document have been assessed on a regular and robust manner within the past academic year.	
	A "0" would indicate than less than 90% of all required courses, programs and institutional level SLOs as indicated by the program's SLO mapping document have been assessed on a regular and robust manner within the past academic year.	

Note rationale on next page.

In no more than two to three sentences, supply a narrative explanation, rationale or justification for the score you provided, especially for programs with a score of less than 22:

Our score is 19. The score is below 22 due to low values for completion and success. Math courses are traditionally very difficult for students across the entire educational system. Our completion and success rates are well in line with other educational institutions in math. We will strive to improve in these areas, but we should not be judged in comparison to completion and success rates at the college as a whole.

Score interpretation, academic programs:

22-26	Program is current and vibrant with no further action recommended
18-21	Recommendation to attempt to strengthen program
Below 18	Recommendation to consider discontinuation of the program

[4] As defined by the RP Group, the success rate is "the percentage of students who receive a passing/satisfactory grade" notation of A, B, C, P, IB, or IC.

Section V - Initiatives

Initiative: Hiring of Student Services Assistant I (40%) for Math Center

Initiative ID: Math 1302
Link to Data: Success data for all of our courses, initiatives from SLO assessment findings from fall 2012
Expected Benefits: Better access to tutoring for our students
Goal: Improved retention and success rates
Performance Indicator: We hope to continue to improve our success and retention rates by one percentage point per year
Timeline: 2014-2015
Funding Resource Category: Staffing Funds
Ranking: H

Initiative: Math Technology Refresh
Initiative ID: Math 1401
Link to Data: Success data for all of our courses
Expected Benefits: Better ability to utilize best practices in the classroom
Goal: Improved success rates
Performance Indicator: We hope to continue to improve our success and retention rates by one percentage point per year
Timeline: 2014-2015
Funding Resource Category: Technology Funds
Ranking: H

Initiative: Recording and Online Posting of Instructional Math Videos
Initiative ID: Math 1402
Link to Data: Success data for all of our courses
Expected Benefits: Help for our students that cannot come in for face-to-face tutoring
Goal: Improved success rates
Performance Indicator: We hope to continue to improve our success and retention rates by one percentage point per year
Timeline: 2014-2015
Funding Resource Category: Equipment-non computer
Ranking: L

Initiative: Smaller Class Caps for Basic Skills Courses
Initiative ID: Math 1403
Link to Data: Success data for basic skills courses
Expected Benefits: Better student-teacher interaction in basic skills courses
Goal: Improved success and retention rates in basic skills courses
Performance Indicator: We hope to improve success and retention rates in basic skills courses by one percentage point per year
Timeline: 2014-2015
Funding Resource Category: Hourly Instruction Funds

Ranking: M

Initiative: Late Start Courses

Initiative ID: Math 1404
Link to Data: Success and retention data for all of our courses
Expected Benefits: Students will be placed in the correct course to help them succeed in math, by offering the option of switching to a late start course at the appropriate level
Goal: We hope to increase success and retention rates for our students
Performance Indicator: We hope to improve success and retention rates in basic skills courses by one percentage point per year
Timeline: 2014-2015
Funding Resource Category: Hourly Instruction Funds
Ranking: M

Initiative: Creating a Problem of the Month for our Students

Initiative ID: Math 1405
Link to Data: SLO assessment findings
Expected Benefits: Greater challenges for our students, with rewards for success and creativity
Goal: Greater student interest in math
Performance Indicator: Greater student participation in math
Timeline: Spring 2014
Funding Resource Category: No new resources needed
Ranking: L

Section VI – Process Assessment

A. **How have the changes in the program review process this year worked for your area?**
We have had a positive experience with the process. It has allowed us to look internally at our program, looking at key data and performance indicators. We have used this data to think about ways we can improve the program.

B. **How would you improve the program review process based on this experience?**
We think the process works well, and look forward to improvements as discussed in college organizational meetings

C. **Appeals**

VII – Submission Verification

Instructions: Please complete the following section:

Program/Department: Math

Mathematics Program Review

2013-2014

Preparer: Alex Kolesnik, Department Chair
Dates met (include email discussions): 9/26, 10/3, plus lots of email discussion over various dates
List of Faculty who participated in the program Review Process: Andrea Adlman, Lisa Anderson, Jan Archibald, Michelle Beard, Donna Beatty, Jack Bennett, Michael Bowen, Janine Bundy, Chris Frederick, Marta Freixas, Alex Kolesnik, Michael McCain, Michelle Millea, Lydia Morales, Ryan Petitfils, John Politowski, Saliha Sha, Shuba Simhan, Dorothy Stowers, and Peter Yi

X **Preparer Verification:** I verify that this program document was completed in accordance with the program review process.

☐ **Dean Verification:** I verify that I have reviewed this program review document and find it complete. Dean may also provide comments (optional):

Mathematics Program Review

2013-2014

APPEAL FORM

(Due to Office of Institutional Effectiveness by November 8)

The program review appeals process is available to any faculty, staff, or administrator who feels strongly that the prioritization of initiatives (i.e. initiatives that were not ranked high but should have been, initiatives that were ranked high but should not have been), the decision to support or not support program discontinuance, or the process followed by the division should be reviewed by the College Planning Council.

Appeal submitted by: (name and program) _____

Date:_____

Category for appeal:

_____ Faculty

_____ Personnel – Other

_____ Equipment- Computer

_____ Equipment – Other

_____ Facilities

_____ Operating Budget

_____ Program Discontinuance

_____ Other (Please specify)

Briefly explain the process that was used to prioritize the initiative(s) being appealed:

Briefly explain the rationale for asking that the prioritization of an initiative/resource request be changed:

Appeals will be heard by the College Planning Council on November 9, 2011 at its regularly scheduled meeting (3:00 – 5:00 p.m.). You will be notified of your time to present.