

2014-2015 Annual Program Review for Remedial Math

College: Hawaii Community College
Program: Remedial/Developmental Math

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Part I: Program Quantitative Indicators

Overall Program Health: **Cautionary**

Demand Indicators		Program Year			Demand Health Call
		12-13	13-14	14-15	
1	Enrolled in any Remedial/Developmental	985	892	731	Unhealthy
2	Semester Hours Taught	213	217	176	
3	* Student Semester Hours (SSH) Taught	4772	4609	3643	
4	Full Time Students (Fall) Enrolled	672	614	445	
5	Full Time Students (Spring) Enrolled	402	384	306	
6	Number of Classes Taught	90	88	60	
Achieving the Dream		AtD Fall Cohort			
		2011	2012	2013	
7	Percent AtD Cohort with Placement	91%	92%	91%	
8	AtD Cohort Placing Remdial/Developmental	81%	81%	77%	
9	Cohort Enrolling Remedial/Developmental	443	416	382	
9a	Percent Cohort Enrolling Remedial/Developmental	49%	53%	57%	
10	* Increase Percent Enrolling	1%	4%	4%	

Efficiency Indicators		Program Year			Efficiency Health Call
		12-13	13-14	14-15	
11	Average Class Size	21.4	20.4	21.6	Healthy
12	* Fill Rate	87.4%	82.1%	87%	
13	Number of Low-Enrolled (<10) Classes	5	10	3	
14	* BOR Appointed Faculty (FTE)	4.1	4.6	3.9	
15	Non-BOR Appointed Faculty Teaching Classes	7	5	6	
16	Percentage Classes Taught by Regular Discipline Faculty	37%	50%	55%	
17	Percentage Classes Taught by non Regular Discipline Faculty	63%	50%	45%	
18	Program Budget Allocation	\$478,627	\$533,405	Not Yet Reported	
18b	Tuition and Fees	\$35,542	\$33,381	Not Yet Reported	
19	Cost per SSH	\$100	\$116	Not Yet Reported	

*Data element used in health call calculation

Last Updated: July 30, 2015

Effectiveness Indicators		Program Year			Effectiveness Health Call
		12-13	13-14	14-15	
Retention (Course Completion)					Cautionary
20	1 Level Below College Level	76%	93%	98%	
21	2 Levels Below College Level	95%	95%	92%	

22	3 or More Levels Below College Level	97%	96%	96%
Successful completion (Equivalent C or Higher)				
23	1 Level Below College Level	52%	63%	86%
23a	1 Level Below College Level	22	25	37
24	Withdrawals (Grade = W)	10	3	1
25	2 Levels Below College Level	60%	61%	57%
25a	2 Levels Below College Level	345	319	276
26	Withdrawals (Grade = W)	27	24	38
27	3 or More Levels Below College Level	64%	65%	58%
27a	3 or More Levels Below College Level	843	803	448
28	Withdrawals (Grade = W)	43	47	33

Achieving the Dream		AtD Fall Cohort		
		2011	2012	2013
29	Cohort Enrolled in Remedial Developmental Course	443	416	382
30	Cohort Successful Completion at Least One Remedial/Developmental Course within First Academic Year	320	273	269
31	Percent Cohort Successful Completion	72%	66%	70%
Remedial/Developmental Pipeline				
32	AtD Cohort Size	1,102	964	874
33	Percent AtD Students Placing Into Remedial/Developmental Level	81%	81%	77%
34	Percent AtD Cohort Enrolled in Remedial/Developmental Course	40%	43%	44%
35	Percent AtD Cohort Successfully Completing Any Remedial/ Developmental Course Within First Academic Year	36%	35%	40%
36	Percent AtD Cohort Successfully Completing College Level Course Within First Academic Year	8%	10%	9%

Successful Next Level		Program Year		
		12-13	13-14	14-15
Persistence (Fall to Spring)				
37	* Percent From 1 Level Below College Level, To College Level	7.1%	33.3%	38.4%
37a	From 1 Level Below College Level, To College level	1	7	10
38	Percent From 2 Levels Below College Level, To 1 Level Below	5%	5%	2%
38a	From 2 Levels Below College Level, To 1 Level Below	11	13	5
39	Percent From 3 or More Levels Below College Level, To 2 Levels Below	25%	22%	26%
39a	From 3 or More Levels Below College Level, To 2 Levels Below	62	79	66
Success in Subsequent Level (Equivalent C or Higher)				
40	College Level From 1 Level Below	1	5	7
40a	* Percent College Level From 1 Level Below	100%	71.4%	70%
41	1 Level Below From 2 Levels Below College Level	4	9	4

42	2 Levels Below From 3 or More Levels Below College Level	30	40	36	
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Program Description:

Remedial or developmental mathematics courses at Hawaii Community College are a part of the Liberal Arts Program, which is designed for students who are preparing to transfer to a four-year college or university as specified in the Hawaii Community College catalog. There is no detailed program description of remedial or developmental mathematics courses, since these courses do not constitute a “program”. These courses are intended to assist students in their goals of enrolling in the higher level courses in mathematics.

Analysis:

The Overall Program Health for Remedial/Developmental Math is Cautionary.

All Demand Indicators decreased except for the AtD Cohort. Percentage decreases were steeper from academic year 13-14 to 14-15 compared to the change from academic year 12-13 to academic year 13-14. The AtD Cohort who placed into remedial/developmental courses fluctuated from 91% to 92% to 91%. From academic year 12-13 to 13-14 there was an increase of 3% from 1% to 4% and remained steady at 4% for academic year 14-15.

Efficiency Indicator is Healthy. Average class size fluctuated from 21.4 to 20.4 to 21.6. Fill rates fluctuated from 87.4% to 82.1% to 87% and remained in the healthy range. Percentage of classes taught by regular math faculty was 55% while 45% were taught by lecturers.

Effectiveness Indicator is Cautionary. Retention for one level below college level increased from 76% to 93% to 98%. Retention for two levels below college level remained steady at 95% for two years and dipped to 92%. Retention for three or more levels below college level remained relatively steady at 97%, 96%, followed by 96%. Successful completion for one level below increased from 52% to 63% to 86%. Successful completion for two levels fluctuated from 60% to 61% to 57% while the number of withdrawals increased from 27% to 38%. Successful completion for three or more levels below fluctuated from 64% to 65% to 58%.

For the AtD cohort, the percent of successful completion fluctuated from 72% to 66% to 70%. 81% to 77% of the AtD cohort placed into remedial/developmental math courses. The percent of AtD cohort who successfully completed a remedial/developmental course in the first year grew from 36% to 40% and the percent who successfully completed a college level course within their first year changed from 8% to 10% to 9%.

Persistence (Fall to Spring) of students one level below college level to college level increased from 7.1% to 33.3% to 38.4%. The percent of students two levels below college level to one level below college level remained steady and then dropped, from 5% to 5% to 2%. The percent of students three or more levels below college level to two levels below college level changed from 25% to 22% to 26%.

Success of college level from one level below college level to college level is 70%. Four students were successful at one level below from two levels below and 36 students were successful at two levels below from three levels below.

Action Plan:

The Developmental Math Action Plan involves:

1. Increasing the number of full-time developmental math faculty, especially since one math faculty member has recently resigned. As an open-door institution, the responsibility of offering developmental math courses remains with the College. Therefore, the need for additional faculty to teach developmental math courses may increase.
2. Obtaining funds for quality professional development. There is an increased need for professional development since the curriculum has changed drastically with the introduction of new math courses, such as Math 76 and Math 103. In addition, these courses need to be articulated across campuses via math conferences and workshops to insure commonality of content, objectives, course learning outcomes and assessment.
3. Obtaining funds for increased classroom computer and calculator resources for developmental learners. The UHCC 2015 – 2016 Strategic Plan's Developmental Education Initiative requires increased use of technology for developmental learners.
4. Increasing the number of hours of accessibility for students in laboratory environments. The offering of developmental math courses require students to spend at least eight to twelve hours per week of practice which necessitate accessible computer and calculator resources and classroom space. Increasing classroom space is necessary to enhance student success.
5. Since developmental math courses support other higher level math courses, in order to increase the number of STEM graduates, the College needs to create successful strategies to support and encourage students to enter STEM areas of study.
6. In accordance with the HawCC's Strategic Plan Goal #4 of the Hawaii Graduation Initiative, the College should be improving the students' time to degree in completing college level math within their first two semesters. As a result, the mathematics curriculum was drastically

changed, to expedite completion of students' math requirement. Data needs to be collected and analyzed to measure the effectiveness of this drastic change in curriculum.

The actions listed above are designed to help increase developmental students' chances for success in progressing to college-level coursework. With the elimination of Compass placement in AY 16-17, more students may be placed into college-level math as a result of various placement measures. Demand, efficiency, and effectiveness will be dependent on decisions made by administration regarding the use of the College's resources to support developmental students in their quest for success.