

2012-13 Annual Program Plan

Name of Program: Basic Skills Math
Name of Unit: Math & Sciences
Name of Area: Academic Affairs
Date Completed: 10/19/2011

Program's Mission Statement

The Basic Skills Program at Rio Hondo College is dedicated to building strong foundational skills for all students that will prepare them for the mathematical content of vocational programs, advanced levels of mathematics required for transfer level courses, and lifelong learning.

Program's Overarching Outcomes - SLOs / SAOs

The Basic Skills Program will increase the persistence and success of students in the basic skills courses.

Faculty and staff involved in the Basic Skills Program will support students by promoting a positive vision of mathematics and providing multiple pathways for completion of coursework.

Program's Characteristics, Performance and Trends

Currently included in the Basic Skills Program are Math 20-Basic Mathematics; Math 30-Pre-Algebra; Math 50-Elementary Algebra; Math 60-Geometry; Math 70-Intermediate Algebra; and Math 72. All courses are offered in a traditional format as lecture courses ranging from 3 semester units (3 hours a week) to 4 semester units (4 hours a week). Elementary Algebra and Intermediate Algebra are 4 unit courses that meet 5 hours a week. Most classes meet twice a week. Some of the 5 hour courses have a four-day schedule.

Math 20, Math 30, Math 50 and Math 70 are also offered as a self-paced course through the MSC. Math 30, Math 50, and Math 70 are offered as on-line courses. Math 50 and Math 70 are offered as hybrid courses, part traditional and part on line.

We are designing a pilot program as another pathway through the developmental math sequence. Th

This pathway will allow students to accelerate their completion of the graduation requirements and progression to a college level math course. This redesign will eliminate overlap between courses and modularize the content for mastery learning. These courses will require computerized classrooms with individual student stations.

This course redesign is driven by results colleges across the nation have shown in improving in retention, success, and persistence in their developmental math courses. Our redesign pilot will build upon the best practices of these successful programs.

There are 18 full time math faculty and 28 part time math faculty who teach basic skills math courses. These courses make up 78% of all mathematics courses at Rio Hondo College. The Math and Science Center (MSC) provides four self-paced courses in the basic skills and tutoring for all levels of Math and Science. The Center is staffed by 5 instructors, 3 instructional assistants, 7 clerks, and approximately 18 tutors. There are approximately 300 students enrolled in the self-paced courses and approximately 600 students who use the center for studying and for tutoring.

The Basic Skills Program has remained steady over the last five years with the growth limited by the number of faculty and classroom space available. The number of students choosing on-line courses has been growing. The success and retention rates have remained the same. We are not content with these rates staying the same, so we are concentrating our efforts on the redesign pilot.

The new graduation requirement may affect the performance of the program in that the students have an extra class to complete for the AA or AS degree.

Updated data for the 2012-2013 program year

Rio Hondo College Total Enrollment							
Summer 2009	Fall 2009	Winter 2010	Spring 2010	Summer 2010	Fall 2010	Winter 2011	Spring 2011
24,057	55,023	1,219	54,986	19,418	52,750	948	45,326

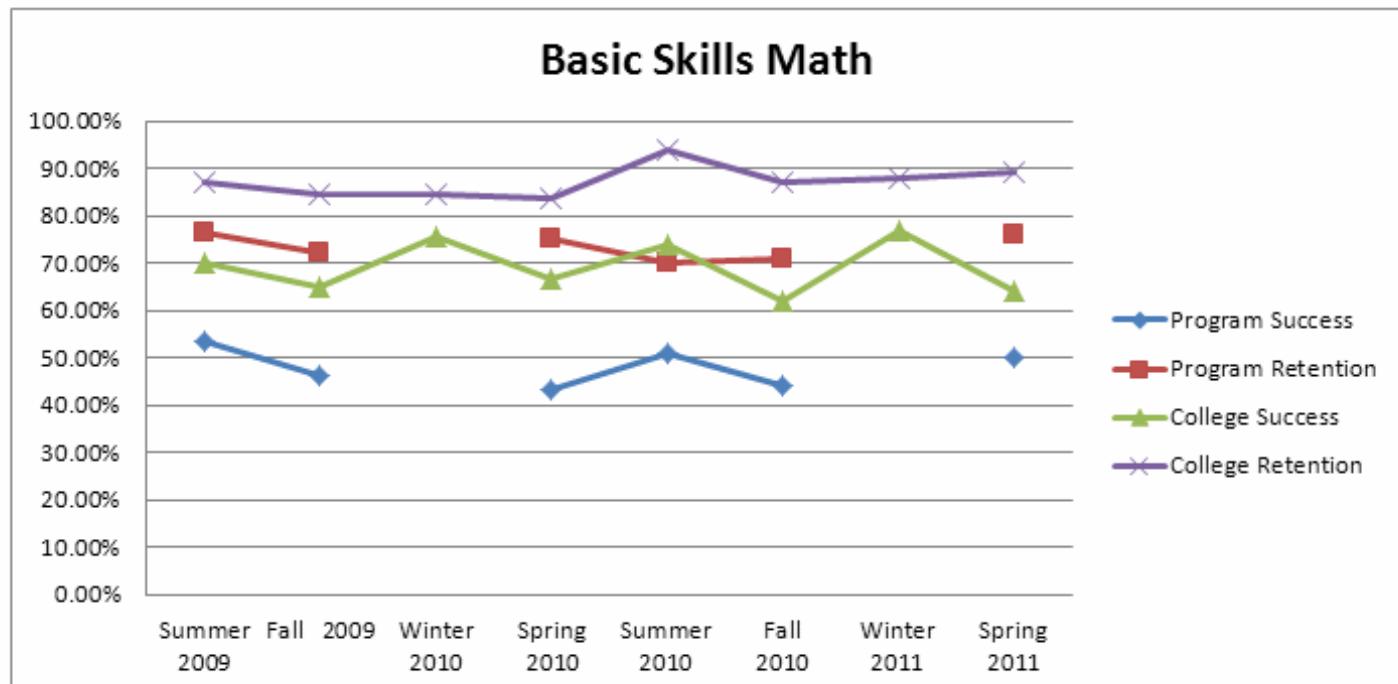
Basic Skills Math Total Enrollment							
Summer 2009	Fall 09	Winter 2010	Spring 2010	Summer 2010	Fall 2010	Winter 2011	Spring 2011
1,392	4,555	0	4,339	1,316	5,234	0	4,156

Basic Skills Math Course Enrollment								
Course	Summer 2009	Fall 2009	Winter 2010	Spring 2010	Summer 2010	Fall 2010	Winter 2011	Spring 2011
MATH020	96	474		417	85	482		378
MATH020A	22	78		90	17	111		55
MATH020B	10	32		36	12	63		20
MATH020C	11	48		40	13	70		28
MATH030	144	813		652	162	827		691
MATH030A	38	176		159	33	216		130
MATH030B	23	114		110	23	154		105
MATH030C	17	102		97	20	131		88
MATH030D	15	98		88	25	118		76
MATH049				4		16		8
MATH050	286	950		911	258	935		965
MATH050A	96	212		188	83	245		164
MATH050B	48	121		120	55	163		97
MATH050C	38	90		103	44	144		81
MATH050D	38	83		92	43	130		81
MATH060		60		59		72		51
MATH070	250	707		669	200	696		696
MATH070A	92	161		190	76	225		158
MATH070B	61	91		122	63	157		110
MATH070C	51	77		98	51	146		93
MATH070D	56	68		94	53	133		81

Basic Skills Math							
Summer 2009	Fall 2009	Winter 2010	Spring 2010	Summer 2010	Fall 2010	Winter 2011	Spring 2011
146.26	551.40	0.00	497.16	140.41	544.15	0.00	665.22

	Summer 2009	Fall 2009	Winter 2010	Spring 2010	Summer 2010	Fall 2010	Winter 2011	Spring 2011
Program Success	53.45%	46.13%		43.28%	51.06%	44.34%		49.98%
Program Retention	76.65%	72.32%		75.11%	69.91%	70.77%		75.83%

	Summer 2009	Fall 2009	Winter 2010	Spring 2010	Summer 2010	Fall 2010	Winter 2011	Spring 2011
College Success	70.24%	65.11%	75.55%	66.50%	74.00%	62.00%	77.00%	64.00%
College Retention	86.98%	84.55%	84.62%	83.80%	94.00%	87.00%	88.00%	89.00%



Program's Strengths

Students have the choice of a variety of outstanding instructors to choose from to help them achieve their goals. The hiring process ensures that our instructors are willing and qualified to teach basic skills courses.

Students have a choice of a variety of delivery systems: traditional classroom environment, on-line, hybrid courses, and self-paced program.

Program's Weaknesses

Despite having qualified and dedicated instructors and multiple pathways for our students, retention and success rates have remained static. This dilemma is a national problem and has triggered redesign efforts across the country. Our goal with our redesign is to improve our retention, success and persistence rates in our developmental math courses.

Many students are turned away from basic skills math classes because the department has an insufficient number of faculty and classroom to offer the number of sections needed. Because of this, class sizes are too large in many cases. Students get less individual attention.

Some students are not being placed into the appropriate math class. An evaluation of the assessment process needs to be done with improvements made as deemed necessary. We are addressing this problem as well in our math redesign which will focus on mastery learning.

Because "C" students struggle the most, instructors need to target these students at the beginning of the semester to encourage them and alert them to the services available to help them. Additional software will be explored to enhance the opportunities for success for these and all students.

Program's Opportunities

Over the last five years, the delivery methods for instruction have expanded and technological support for classroom instruction has increased. The program, and the redesign pilot in particular, will continue to explore additional software opportunities to enable the students to be more successful.

In order to implement the best practices of successful redesign programs, we must have additional classrooms with individual computer stations for students. This could be achieved with more computer lab space or with portable laptop stations for our current classrooms. The success of these programs is dependent on each student having computer access during class. All students will be doing math in class as opposed to watching a math lecture.

A new requirement for graduation with an AS or AA degree has been added. Students who want to earn the degree must have one additional math course beyond elementary algebra. As a result, a new course has been developed.

There is a college-wide need to continue SLO development.

College-wide cyclical planning has begun and needs to continue.

Program's Threats

Without individual computers for each student in a classroom, our redesign pilot cannot be implemented at Rio Hondo College.

Many students are not able to add the math classes they need for their graduation and/or transfer requirements. Hundreds of students wishing to add basic skills math classes are turned away each semester.

Program's Accomplishments and Recommendations for Improvement

The Basic Skills Program is strong, viable, and stable. There are always more students wanting to take courses than there is space in the classes.

One additional course (Math 72) has been added to meet the new guidelines for graduation with an A S or AA degree.

We hope to implement our math redesign pilot in the Fall of 2012. Data from other colleges have shown noted improvement in retention, success and persistence as a result of this type of redesign. We recommend that the college support the redesign efforts so that more students reach their graduation goals here at Rio Hondo College.

"C" students are less successful. We need to target them early in the semester to try and improve their vision of math as an area where they can be successful.

Program's Strategic Direction

Our current levels of retention and success mirror results in other two-year colleges nationally. We are not content with being as good as everyone else, we want to be measurably better.

We are designing a pilot program as another pathway through the developmental math sequence. This pathway will allow students to accelerate their completion of the graduation requirements and progression to a college level math course. This redesign will eliminate overlap between courses and modularize the content for mastery learning. These courses will require computerized classrooms with individual student stations.

This course redesign is driven by results colleges across the nation have shown in improving in retention, success, and persistence in their developmental math courses. Our redesign pilot will build upon the best practices of these successful programs.

The department will continue to find additional classrooms to add more sections as the budget allows. In particular, we will need computer lab space or portable laptop carts to implement our math redesign pilot program

Program's Staff Development

The Math Department meets on a monthly basis to consider curriculum issues, explore math software for use in the classroom, work on SLOs and communicate departmental needs.

To allow the faculty to become updated in the latest trends in technology, they are encouraged to attend conferences such as ICTCM, AMATYC, and NCAT. These conferences are essential for networking with faculty members at other colleges who are contemplating and/or instituting math redesign.

The math department will decide on one standard software to be used in the redesign pilot to enable the students to be more successful in their developmental math courses. We are currently in the process of exploring our options so as to choose the software that best fits in the redesign.

Goal #1 Short term (1 year) Corresponds with Institutional Goal # 3 Status: in progress

Description of Goal

To complete the planning process for the math redesign pilot.

Evaluation of Goal

Curriculum for the redesign submitted and approved by the Curriculum Committee for implementation in Fall 2012.

Objective #1.1

Status: in progress

Select software for the redesign.

Existing Resources

Flex time or department meeting time to meet with software representatives, compare software and vote on final selection.

Objective #1.2

Status: in progress

Determine consistent class structure for the redesign.

Existing Resources

Flex time, Basic Skills stipend, Department meeting time.

Goal #2 Long term (2-5 years) Corresponds with Institutional Goal # 3 Status: in progress

Description of Goal

Implement the math redesign pilot starting in the Fall of 2012.

Evaluation of Goal

Are these courses up and running in the Fall of 2012?

Objective #2.1

Status: in progress

Acquire lab space and classroom computers.

Existing Resources

24 computers in S301

Resources Needed: Additional Technology

Technology Classification: Computer Hardware

Requested Amount: \$4,200.00

Description:

6 desktop computers with internet access.

Reason:

Have 30 classroom computers in S301 for use in the math redesign pilot.

Location: S301

New or Replacement: New Installation

Services Required: Electricity, Internet Access, College Network Access, Hardware Support

Technology Classification: Computer Hardware

Requested Amount: \$21,000.00

Description:

A mobile classroom set up laptops. This estimate is for 40 laptops with 2 mobile charging stations. This set could be used for one large class or for two smaller classes if some of the students could bri

ng their own laptops. This estimate is based on \$500 for each laptop times 40 plus \$500 for each mobile charging cart (per 20 computers). We could use the existing college network for internet access or purchase a wireless hub for the class set.

Reason:

Having a mobile computer lab would enable us to schedule more math redesign pilot classes. In addition to S301 as a fixed lab, having a mobile lab would provide more options for scheduling the courses.

Location: Math & Science Division S233

New or Replacement: New Installation

Services Required: Internet Access, College Network Access

Objective #2.2

Status: in progress

Schedule the redesign pilot classes.

Existing Resources

Current classrooms (if laptop carts are funded) and full time use of S301.

Objective #2.3

Status: in progress

Inform and educate the campus community, including counselors, students and faculty, of the redesign pilot.

Existing Resources

Math faculty and counselors.

Goal #3 Long term (2-5 years) Corresponds with Institutional Goal # 3 Status: in progress

Description of Goal

Show improvements in retention, success and persistence of students in our redesign math courses.

Evaluation of Goal

Data will be collected on an ongoing basis to evaluate how the redesign pilot compares to the other

modes of instruction.

Objective #3.1

Status: in progress

Increase our rates by 5% in the redesign classes compared to the other delivery styles.

Individuals Who Participated in Developing this Plan

The following people acknowledge that they participated in the development of or reviewed this plan.

Name	Role
1. Okelberry Gonzalez, Lydia	Program Manager
2. Hemenway, Elaine	Participant