Barstow Community College

INSTRUCTIONAL PROGRAM REVIEW

PROGRAM:	Natural Science and Mathematics A.S.
Academic Year:	2013-2014
Date Submitted:	Oct 2, 2013
By:	
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1. Program Mission and Vision

A. Program Mission

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

Natural Science and Math examines the physical universe, its life forms, and its natural phenomena. The program helps the student develop an appreciation and understanding of the scientific method and helps the student apply logical, quantitative, and qualitative reasoning in solving problems and analyzing arguments in both the natural sciences and mathematics.

B. Program Vision *(Where would you like the Program to be three years from now?)*

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

Natural Science and Math's vision is to achieve and maintain excellence in student learning and success.

C. Describe how mission and vision align with and contribute to the College's Mission and Vision

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

A. "Fostering an innovative learning environment that respects the diversity of individual backgrounds, abilities, and cultures." All of the departments in Math and Natural Sciences offer an extensive course curriculum, each of which is unique in its treatment of diverse topics. In the natural sciences, a majority of courses have a laboratory component which gives the instructor a unique opportunity to really get to know and work with their students on a one-to-one basis. The laboratory environment promotes teamwork, student-student, and student-instructor interactions. With a variety of learning methodologies and teaching strategies, it is possible for students to choose a learning style that most closely matches theirs. In some courses, a "Learning Styles Inventory," is administered at the beginning of each semester. This helps students understand what their learning style is and what it means to them in different classroom situations. Many of our students have difficulty with their initial math and science courses; and Barstow Community College has a viable and productive tutoring center for students in need of additional help beyond the classroom.
B. "Offering programs to prepare student in basic skills, career and technical education, lifelong learning opportunities, and comprehensive lower division courses that meet articulation agreements for student transfer to four-year colleges and universities." The following courses meet the associate degree requirements for CSU transfer and for IGETC requirements (BIOL 11 and MATH 1 are not on the IGETC list of classes).
Physical Science: ASTR 1, ASTR 1L, CHEM 1, CHEM 2A, CHEM 2B, GEOL 1, GEOL 1L, GEOL 2, GEOL 3, GEOL 5, OCEA 1, PHSC 1, and PHSC 2
Life Science: BIOL 1, BIOL 2, BIOL 4, BIOL 5, BIOL 8, BIOL 10, BIOL 10L, and BIOL 11
Mathematics: MATH 1, MATH 2, MATH 3, MATH 4A, MATH 4B, MATH 4C, and MATH 5
These courses have been designed and articulate for Natural Science/Math majors transferring to four-year colleges and universities. The goals of all these courses are to provide the necessary background and tools for students to achieve the institutional or general education goals of Barstow Community College. The over-arching institutional goals for BCC are: communication, critical thinking, professional development, and global awareness. All of us in the natural sciences and mathematics areas strive to prepare our students for upper division work at their transfer institution.
The contributing departments of the Natural Science/Math degree contribute to the Barstow Community College Educational Master Plan (2011) in the following ways:
A. To anticipate courses, programs, and services of the College.
There are four courses that are in preparation that add a needed emphasis on the curriculum as a whole. Biochemistry and Astronomy 2 are being developed to meet student need and demand. The Math Department is adding Developmental Math and Quantitative Reasoning. Allied Health requirements are fluid at best and the departments are responding to those changing requirements.
B. To project the delivery of a balanced curriculum, providing transfer, career/technical, and basic skill

education.
See the answer to A above.
C. To provide analysis of current program of instruction
See the answer to A above. it is also mandated that each department review its curriculum and pre-requisites on a minimum 6 year plan. The Biology Department is set to review its pre-requisites during the Spring and Fall 2013 semesters.

Math & Natural Sciences A.S Program Outcomes

DATE:	October 2, 2013
ANNUAL UPDATE #1:	The Natural Science and Mathematics Program mission and vision were unchanged as they continue to serve the needs of our students. Astronomy 2 has been approved by the Chancellor's Office and will be offered Spring 2014. Biochemistry remains under development. Biology faculty are reviewing pre-requisites and will complete the process by the end of the Fall 2013 semester.
DATE:	
ANNUAL UPDATE #2:	

2. Program Description and Overview

Assume the reader does not know anything about the Program. Describe the Program, including—but not limited to—the following:

A. Organization, including staffing and structure
B. Who do you service (including Demographics)?
C. What kind of services does your program provide?
D. How do you provide them?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

The Natural Science/Math Program includes the natural and physical sciences as well as mathematics.

- There are two full-time Biology instructors, one full-time Chemistry instructor, one full-time Earth Science and Astronomy instructor, and two full-time mathematics instructors.
- There are approximately 12 adjunct instructors, most of which are in math.
- The program provides the basic requirements for allied health programs, especially nursing.
- It also provides for transfer courses to complete a bachelor's degree at four-year colleges and universities.
- The program also provides classes for those who are interested in continuing their education but may not be pursuing a degree.
- Natural Science and Mathematics provides both day and night classes in all the disciplines.
- In the sciences most of the classes are traditional format with a few online deliveries (i.e. Astronomy, Intro. to Biology, and Environmental Biology).
- There are hybrid math classes as well as online and traditional.
- Early morning classes are available in the natural sciences and in math.

DATE: October 2, 2013

ANNUAL UPDATE #1:	There were no changes to the program description or overview.
DATE:	
ANNUAL UPDATE #2:	

3. Program Data

A. PERFORMANCE DATA

Discuss the program's performance on the specific data items listed below:

1) Full-time/Part-Time Faculty Ratio

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

Course Completion Rate

	Fall 2011	Spring 2012
Astr 1	73.0	71.5
Geol 1	64.0	91.0
Bio 1	82.0	NA
Bio 2	76.3	88.0
Bio 4	79.0	94.0
Bio 5	74.0	81.0
Bio 8	NA	89.0
Bio 10	74.0	NA
Bio10L	57.0	NA
Bio 10 DE	76.0	NA
Chem 1	41.5	45.5
Math 50	76.3	67.0
Math 55	64.3	75.8
Math 101	66.0	81.0
Math 1	NA	89.0
Math 2	48.0	35.0
Math 3	91.0	90.3
Math 4A	NA	NA
Math 4B	NA	83.0
Math 4C	83.0	NA
Math 5	NA	NA
Phys. Sci.	71.0	70.0

Course Success and Retention

	Fall 2011 Retention	Fall 2011 Success	Spring 2012 Retention	Spring 2012 Success
Biology	93.0	95.2	94.0	91.7
Chemistry	69.0	75.0	60.5	67.0
Phys. Sciences	85.0	95.5	85.0	95.0
Math	88.0	80.4	87.0	89.8

Full Time/Part Time Faculty Ratio

	Fall 2011	Spring 2012
Biology	2:1	2:2
Chemistry	1:0	1:0
Phys. Sciences	1:1	1:2
Math	2:6	2:11

WSCH/FTEF ratio

	Fall 2011	Spring 2012
Astr 1	113/3.75	81/5.40
Geol 1	126/4.20	90/3.00
Biol 2	195/4.33	177/5.90
Biol 4	297/9.90	297/9.90
Biol 5	161/5.37	175/5.83
Biol 8	NA	225/7.50
Biol 10	84.10/2.80	NA
Biol 10L	58/1.93	NA
Biol 10 DE	135/4.50	NA
Chemistry	87/2.90	88/2.60
Math 101	129/4.30	78/2.60
Math 50	157/5.24	142/4.74
Math 55	129/4.29	153/5.10
Math 2	104/3.47	60/2.00
Math 3	147/4.90	111/3.70
Math 4A	45/1.50	NA
Math 4B	NA	25/0.83
Math 4C	25/0.83	NA
Phys. Sci.	75/2.50	69/2.30

The above data is most likely flawed (FTES and FTE); there is a drastic drop in the data from both CampusData and the Chancellor's office data. Hopefully, this can be corrected within the next few months.

Fill rate

	Fall 2011	Spring 2012
Astr 1	84.3	74.1
Biol1	102.0	110.0
Bio 10	50.0	100.0
Bio 10L	103.0	NA
Bio 10 DE	94.0	NA
Biol 2	69.8	102.0
Biol 4	78.1	103.0
Biol 5	81.3	84.4
Biol 8	NA	78.1
Chem 1	65.6	64.1
Geol 1	81.3	NA
Geol 4	NA	96.9
Math 101	85.8	65.3

Math 50	100.0	78.8
Math 55	97.5	85.8
Math 2	78.0	58.0
Math 3	128.0	90.2
Math 4A	27.5	NA
Math 4B	NA	25.0
Math 4C	300.0	NA
Phy. Sci.	84.4	90.6

2) Course Completion Rate

	TRADITIONAL	ONLINE
a) Full-time:	See above	See above
b) Part-time:	See above	See above

3) Course Success/Retention Rate

	TRADITIONAL	ONLINE
a) Full-time:	See above	See above
b) Part-time:	See above	See above

4) WSCH/FTEF Ratio

	TRADITIONAL	ONLINE
a) Full-time:	See above	See above
b) Part-time:	See above	See above

5) Fill Rate

	TRADITIONAL	ONLINE
a) Full-time:	See above	See above
b) Part-time:	See above	See above

DATE: October 2, 2013

ANNUAL UPDATE #1: Full-Time/Part-Time Faculty Ratio

	Full-Time	Part-Time
Fall 2012	7	10
Spring 2013	8	16
Summer 2013	5	5
Total for All Terms	**9**	**20**

A more detailed break-down of faculty ratio is attached.

Course Completion Rate

	Traditional	Online
Full-Time	879	605
Part-Time	533	940

A more detailed break-down of course completion rates is attached.

Course Success/Retention Rate

	Traditional	Online
Full-Time	77.3	65.8
Part-Time	70.4	67.1

A more detailed break-down of course success and retention rates is attached.

WSCH/FTEF Ratio

Data not available at this time.

Fill Rate: as reported as EOT/MAX

	Traditional	Online
Full-Time	71.91%	55.75%
Part-Time	62.7%	71.3%

A more detailed break-down of fill rates, including 1st Day/Max, Census/Max, and EOT/MAX, is attached.

DATE:

ANNUAL UPDATE #2:

B. Progress on Program Level Outcomes (PLOs) and Student Learning Outcomes

1) Summarize the progress your program has made on program and/or course level SLO measures. *(Include **Outcome Statements** in this summary.)*

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

Natural Science/Mathematics Program Outcomes:

Progress Summarized:

The Natural Science/Mathematics program has completed two cycles of the assessment process for Program Level Outcomes (PLO). All course level SLOs are assessed each semester for each class and a core group are analyzed by the Class Climate assessment each semester. That data is aggregated and program norms are being established.

2) Describe any program, course, and/or instructional changes made by your program as a result of the outcomes assessment process.

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

The major change is a commitment to encourage the students to use the tutoring center and other student aids provided by the publisher to increase success in math and science. Many courses have additional website information for the student (i.e. Biol 2, Biol 4, Biol 5, Geol 1, Chem 1, and most all mathematics classes).

3) Reflecting on the responses for #1 and #2 above, what will you implement for the next assessment cycle?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.
From #6.3 (What is your plan for completing and then continuing the assessment cycle?)

We have already completed two cycles of assessment. The plan is to continue and gather baseline type data. Significant changes were made in the assessment process after the first cycle. The data from the second cycle is being analyzed, but no significant changes are going to be made for this current cycle other than those mentioned in #2.

DATE:	October 2, 2013
ANNUAL UPDATE #1:	In 2012-2013, for each course taught in that academic year, all Natural Science and Math course outlines of record were updated to accurately list the SLOs to assist all faculty have consistent and uniform SLOs. All student learning outcomes were assessed for each course taught. In addition, program norms continue to be established and faculty are discussing ways in which to assess program learning outcomes. Faculty remain committed to encouraging students to use the tutoring center, publisher-provided study aids, and faculty office hours to increase student success in math and science.
DATE:	
ANNUAL UPDATE #2:	

C. Supporting Assessment Data *(See Handbook for additional information)*

1) Provide a list of any additional measures *(not included in 3.A.)* that you have chosen to gauge your program's effectiveness *(e.g.: transfers, degrees, certificates, satisfaction, student contacts, student headcount, Perkin's data, etc.).*

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

The program also tracks the number of degrees in the Natural Sciences/Math program. We also did the Program Level Outcomes for Natural Science/Math.

2) Summarize the results of these measures.

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

We had 26 degrees awarded in 2009, 39 in 2010, 34 in 2011, and so far in 2012 we have 22 and that, of course does not include the last semester counted in 2012.
We utilize a standard rubric for our PLOs that include 4 areas of concentration: conceptual understanding, strategies and processes, communication, and accuracy. These are in alignment with the mission and strategic plan. The overall results are based on 4 basic classes in the program (Bio 5, Chem 1, Geol 1, and Math 55). The scores were: CU (76%), PS (70%), C (70%) and A (74%).

3) What did you learn from your evaluation of these measures, and what improvements have you implemented, or do you *plan** to implement, as a result of your analysis of these measures? *(*List any resources required for planned implementation in #10: Resources.)*

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

Providing students with the tools to be successful is the major outcome for degrees and certificates. In the PLO program analysis we also checked a number of other factors: 80% of the students did read the text and reviewed lecture notes/slides regularly; 70% studied in a study group; only 50% attended any tutoring sessions; most got help from a classmate or friend (78%); and the factor that contributed to most problems was work (72%).
The instructors are encouraging the use of faculty office hours, the tutoring center, and the use of study groups. Time management skills looks to be a major factor in the successful student.

4) Include DCP Program Assessment Benchmarks, providing analysis of data on long term goals and objectives.

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

Benchmark II relates both SLO and PLO data collection. All courses were analyzed for SLOs for the four major fields of study in Natural Science/Mathematics. There is no standard rubric used at the course level and each instructor assesses the SLOs independently of each other. For the PLOs, however, there is a standard rubric that assesses Conceptual Understanding, Processes and Strategies, Communication, and Accuracy. Biol 5, Geol 1, Chem 1, and Math 55 are used for analysis in the PLOs; these are courses that students most often take in the degree program. Approximately 175 students were assessed each semester and only Math 55 and Chem 1 had multiple sections. Data was collected by the 6 full-time faculty and 2 part-time faculty for SLOs and only the full-time faculty for PLOs (only full-time faculty taught the assessed classes).

		Fall 2011	
	PLO #1	**PLO #2**	**PLO #3**
Biol 5	84	77	84
Chem 1	ND	ND	ND
Geol 1	68	68	86
Math 55	67	62	57

ND=not determined

		Spring 2012	
	PLO #1	**PLO #2**	**PLO #3**
Biol 5	82	67	79
Chem 1	ND	ND	76
Geol 1	Not taught	Not taught	Not taught
Math 55	88	73	84

All of the course level SLOs and the degree level PLOs tie directly to the four Core Competencies of the college: Communication, Critical Thinking, Personal Development, and Global Awareness.

DATE:	October 2, 2013
ANNUAL UPDATE #1:	3.C.1: We continue to track the number of degrees awarded in Natural Science and Mathematics. 3.C.2: There were 28 degrees awarded in Natural Science and Mathematics in 2012-2013. The faculty member responsible for gathering and analyzing PLO data accepted a new position prior to the start of Fall 2013. The new faculty member has been unable to find the PLO data for 2012-2013. It is recommended that the Natural Science and Mathematics program faculty discuss as soon as possible and no later than by the end of the Fall 2013 how future PLO data will be gathered, analyzed, and stored. A system accessible by all area faculty is recommended. 3.C.4: To better assist students achieving success, faculty continue to assess PLOs and SLOs. In the upcoming year, part-time faculty will be asked to assess PLOs in their classes in addition to full-time faculty continuing to assess PLOs. Both full-time and part-time faculty assess SLOs.
DATE:	
ANNUAL UPDATE #2:	

D. Two-Year Scheduling Plan

1) What is the program's Two-Year Scheduling Plan? What changes, if any, have been made since the last Program Review?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

In Biology we have only two courses that are not taught every semester; Bio 10L is offered only in the Fall and Bio 8 is offered only in the Spring.

In Chemistry the CHEM 1 course is taught in the Fall and Spring every year.

The two year plans are filed in the Instruction Office. All departments filed a two-year plan in 2006-2007. Earth Sciences and Mathematics have offered courses in compliance with their two-year plan (no changes have been made in the plan).

2) How effective has the Two-Year Scheduling Plan been in meeting student needs and educational goals?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

NOTE: This question was not on the PROGRAM REVIEW from OCTOBER 2012.

Therefore, it was not answered in Oct 2012 full program review – see update Oct 2013

3) Reflecting on these results, what are the goals for the next assessment cycle?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

NOTE: This question was not on the PROGRAM REVIEW from OCTOBER 2012.

Therefore, it was not answered in Oct 2012 full program review – see update Oct 2013

DATE:	October 2, 2013
ANNUAL UPDATE #1:	Question 3.D.1 – No changes have been made to the two-year scheduling plan. Question 3.D.2 – The scheduling plan has been effective in meeting student needs and educational goals. A measure of the effectiveness is the continued strong enrollment in natural science and mathematics courses. While there are fewer students who have declared a math/science major compared to previous years (477 in 2012-2013 compared to 496 2011-2012 and 566 in 2010-2011) this change may be more related to improving economic conditions or other external factors. Question 3.D.3 (Reflecting on these results, what are the goals for the next assessment cycle?) – The goals for the next assessment cycle include continuing to assess the needs of the students to best provide opportunities for success. Biology faculty have been asked to help pilot TracDat. The data gathered should help faculty better understand the dynamic needs of students, continuously gather assessment data, and better align program goals with institutional goals.
DATE:	
ANNUAL UPDATE #2:	

4. Curriculum

A. List any new courses or program changes since the last program review. Be sure to include any newly approved prerequisites or corequisites.

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

ASTR:
ASTR 1, ASTR 1L
BIOL:
BIOL 1, BIOL 2, BIOL 4, BIOL 5, BIOL 8, BIOL 10, BIOL 10L, BIOL 11
CHEM:
CHEM 1, CHEM 2A, CHEM 2B
GEOL:
GEOL 1, GEOL 1L, GEOL 2, GEOL 3, GEOL 4, GEOL 5
MATH:
MATH 1, MATH 2, MATH 3, MATH 4A, MATH 4B, MATH 5, MATH 50, MATH 55, MATH 101
GEOG:
GEOG 50, GEOG 51, GEOG 52, GEOG 53
OCEA:
OCEA 1
PHSC:
PHSC 1

There are 34 courses available in the departments associated with the Natural Science and Mathematics degree. The number of classes for the actual degree depends on the emphasis of the student, whether it is natural science or mathematics (for detailed description see the latest Barstow Community College online catalogue.

Natural Science
Due to the new Chancellor's Office requirement for Methods of Instruction, most of our courses are not in full compliance. We have added the SLOs to each COR and will also be doing a prerequisite review next year. The new Methods of Instruction have been completed for Bio 2, Bio 4, Bio 5, and Bio 8 which have been submitted to the Curriculum Committee for review. Chemistry and Earth Sciences have yet to complete the Methods of Instruction.

Mathematics
Due to the new Chancellor's Office requirement for Methods of Instruction, none of the math courses are in full compliance.

1. Prerequisites: Biology (4; 50%) Chemistry (3; 100%), Mathematics (10; 91%) Astronomy (1; 100%), Geology (0; 0%), Geography (0; 0%), Physical Science (0; 0%)
2. Co-requisites: Biology (0), Chemistry (0), Mathematics (0), Astronomy (0), Geology (0), Geography (0), Physical Science (0)
3. Advisory: Not applicable

For the total number of courses required by the degree and the options, please see the latest online catalogue.

B. Explain the current evaluation process. How and when was the curriculum last evaluated? *(Appropriateness, archiving, deleting, revising, etc.)*

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

NOTE: This question was not on the PROGRAM REVIEW from OCTOBER 2012.

Therefore, it was not answered in Oct 2012 full program review – see update Oct 2013

C. List any courses not in full compliance with Curriculum Committee Standards, including those that have not been updated in the past six years *(see Curriculum Manual for additional information, if necessary)*.

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

D. Curriculum Development: What is the plan for maintaining the currency and viability of your curriculum *(including all modes of delivery)*?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

The Biology Department and Chemistry Department are in early development of an online Biochemistry course (no lab). Many of the two year nursing programs are adding Biochemistry as a prerequisite for entrance into their program; the four year colleges and universities have already implemented this requirement. The Chemistry Department is also looking at changes in CHEM 1 to make it a course that covers general chemistry with organic chemistry and biochemistry. Nursing programs are now requiring a

course that has all three of those disciplines. We have had students who have had to retake chemistry because our CHEM 1 does not cover the extra topics.
Physical Sciences are working on developing an ASTR 2 class which would cover the planets.

The Biochemistry course mentioned above would be an online course; it would be a 3-hour lecture course with no lab. This course will be designed for the allied health student who needs a basic introduction to the field of biochemistry. It would be cross listed in both biology and chemistry. Astronomy 2 would be both traditional and online delivery.

This past Spring semester (2012) Biology and Chemistry archived or deleted a number of courses that had not been taught in many years. There is no plan to teach them again in the future. All of the physics courses were archived this past semester since we have no physics instructor and they have not been taught in at least 7 years.

DATE:	October 2, 2013
ANNUAL UPDATE #1:	4. A. At this time, natural science and mathematics courses are in compliance of all issues (not including prerequisite validations). Validation of prerequisites for courses will be complete by the end of the Fall 2013 semester. Natural science and mathematics courses completed the Methods of Instruction in their CORs. CHEM 1 now has a MATH 55 prerequisite, changed from a MATH 50 prerequisite. CHEM 1 also changed from a 4 unit to a 5 unit course, effective with the Spring 2014 semester. 4. B. Curriculum evaluation is an on-going process, with faculty assessing the educational needs of students when recommending changes. Chemistry and Biology faculty recognized the need to offer a Biochemistry course to meet the needs of Allied Health students; such assessment of student needs is dynamic and fluid. Developing a process of formal curriculum evaluation should be discussed over the 2013-2014 school year. Planning such evaluation would require release time for faculty members to meet and discuss such processes. 4.C. No changes 4.D. The Biology and Chemistry disciples remain committed to developing necessary courses to meet the needs of pre-nursing students and other allied health students, in addition to meeting the needs of general education students and other students with diverse interests in the natural sciences. The Chemistry faculty have concluded that changing CHEM 1 to cover general chemistry, organic chemistry, and biochemistry is not feasible due to topic coverage and laboratory facilities. Astronomy 2, an observational science class examining the planets, is currently being developed. It will be delivered in a traditional format to offer better opportunities for student success.
DATE:	
ANNUAL UPDATE #2:	

5. Internal Factors *(see Handbook for worksheet)*

A. Strengths

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

From #5 Program Status: What is going well and why?

All of our classes traditionally make and many close during registration. Enrollment is up in Natural Science and Math. The major strength of each of the departments within the program lies in the diversity of the courses offered. There are courses in all of the fields of geology, astronomy, and oceanography. In addition, there is a general introductory course in Earth Science which gives non-majors a very broad introduction to all of the earth science subjects. In Biology, Concepts in Biology serves the same purpose as a general introduction to the many areas of the biological sciences. Online courses and night classes are offered in each of the contributing departments. There is currently no major weaknesses with respect to curriculum in any of the departments within the Natural Science/Mathematics program.

B. Weaknesses

PROGRAM REVIEW RESPONSE from OCTOBER 2012.
From #5 Program Status: What is not going well and why?

In Biology both instructors have overload assignments each semester and it is difficult to develop and plan for future projects when there is no time to do it. Also, the DCP and DE Coordinator come from the Biology department. There is only one chemistry instructor; there was an adjunct a few years ago. The chemistry instructor also teaches in the mathematics area. We also have only one geology instructor and it is difficult to plan with one instructor departments. In mathematics, the last full-time instructor who left was not replaced and enrollment has increased overall in all of the departments. However, we do realize that with the economic conditions in the state of California, there is probably not going to be any change in staffing.

DATE:	October 2, 2013
ANNUAL UPDATE #1:	5. A. The strengths identified in October 2012 continue to remain as strengths in this annual update. The curriculum of the Natural Science and Mathematics program remains robust. 5. B. The weaknesses identified in October 2012 remain as weaknesses. An increase in faculty in the chemistry, geology, and mathematics disciplines would increase those disciplines ability to plan future curriculum improvements. However, the economic conditions in the state of California, while improving, remain challenging and we do realize that there is probably not going to be an increase in staffing.
DATE:	
ANNUAL UPDATE #2:	

6. External Factors *(see Handbook for worksheet)*

A. Opportunities

PROGRAM REVIEW RESPONSE from OCTOBER 2012.
From Question 3 *(What external factors have a significant impact on the program? Include the following, as applicable)*

Job Market: The math requirement for the degree is the general Math 55 requirement for the two-year degree. Most of the majors in the program are in the allied health fields in which the demand far exceeds

the number available. Therefore, the job market, at this time, is not a critical limiting factor.

B. Threats

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

From Question 3 (*What external factors have a significant impact on the program? Include the following, as applicable)*

Budgetary Constraints: The full-time math instructor who left has not been replaced. This program review will address that later in the Budget Allocation Proposals. Departmental budgets have been reduced and this places a burden on science especially since they have classes that use consumables and must be replaced yearly.

Requirements from four-year institutions: Notification of any articulation changes usually comes from the counselors; for example, the changes in math requirements for science and changes in the structure of general chemistry.

Requirements from two-year allied health programs: The two-year programs have added requirements and changed existing requirement. The changes in requirements have the greatest effect on our students. Chemistry now must be a "General, Biochemistry, and Organic" general class and it must be stated so in the course title.

DATE:	October 2, 2013
ANNUAL UPDATE #1:	The external factors identified in October 2012 remain. The job market remains a strong opportunity while budgetary constraints and requirements from four-year institutions remain as external threats.
DATE:	
ANNUAL UPDATE #2:	

7. Continuing Education/Professional Development

A. What continuing education and/or professional development activities have program/unit members participated in during the current cycle?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

B. What are the continuing education and/or professional development plans for the upcoming cycle?

PROGRAM REVIEW RESPONSE from OCTOBER 2012.

DATE: October 2, 2013

ANNUAL UPDATE #1:	Faculty members have participated in several conferences and workshops focusing on professional development since October 2012. For the upcoming year, faculty members intend to pursue continuing education opportunities, and attend professional development conferences germane to their disciples. Faculty have also been invited to make presentations on pedagogy at professional development and research conferences.
DATE:	
ANNUAL UPDATE #2:	

8. Prior Goals/Objectives

Briefly summarize the progress your program/ has made in meeting the goals and objectives identified in the most recent Program Review or Annual Update. *(Include measurements of progress or assessment methods.)*

PROGRAM REVIEW RESPONSE from OCTOBER 2012.
From Question 7

Our most recent Program Review for the Natural Science/Mathematics degree is unofficial. The last ones submitted were departmental (2009-2010). The goals of the departments were essentially the same as portions of the Master Plan:

Goal One: Provide learning programs and an environment that ensures student success.

Objective 1.1-Expand and/or revise the curriculum to meet the dynamic needs of students and community. Specifically we address Action 2 in the Plan which states "Develop student skills that promote lifelong learning with competencies in computer literacy, oral and written communication, and critical and analytical thinking." These are emphasized in the student learning outcomes. Natural Science/Mathematics offers a wide variety of courses, each of which is unique in its treatment of diverse topics. Many of the courses have a laboratory component that gives instructors the unique opportunity to really know and work with their students. The laboratory environment promotes teamwork and student-student and student-instructor interactions. Many students have difficulty with their initial science and math courses and BCC has a viable and productive tutoring center for students in need of additional help outside the classroom.

Objective 1.3- Support flexible pedagogies designed to improve student learning and achievement.
Objective 1.5- Develop learning support systems that are effective and flexible to meet changing student needs and enrollment growth. In particular, Action 2, "Enhance collaboration between tutorial services and faculty" by donating instructor copy textbooks and recommending tutors to the Center.
Objective 1.6- Provide modern facilities and classrooms with integrated technologies that support learning programs and accommodate projected student growth. Faculty have been provided with training for both live and online delivery.

Goal Four: Create an effective work environment

Objective 4.1- Enhance college wide dialog and develop a more effective link between department and institutional goals. Action 4 emphasizes planning sessions, objectives, and measurable outcomes contained in a program review.

Goal Five: Improve college programs through systematic evaluation.

Objective 5.2- Align courses and programs with mission, overall curriculum and System's Office reporting taxonomies. Action 2 is adding student learning outcomes to the program template.

	Objective 5.3- Include SLO assessment for online courses at all levels of evaluation. The Natural Science and Mathematics Program has met or exceeded all of the above stated goals from the last composite program reviews of the individual departments (Biology, Chemistry, Earth Science, and Mathematics).
DATE:	October 2, 2013
ANNUAL UPDATE #1:	Goal One: Objective 1.1: We continue to expand and revise the curriculum as necessary to meet the dynamic needs of our students. Astronomy 2 has been approved through the Chancellor's Office for delivery. This course offering expands students' choices in observational science courses. BIOL 2 has been approved through the Curriculum Committee level to be offered as a hybrid class; Biochemistry remains in development. Objective 1.3: Faculty continue to support flexible, research-based pedagogies designed to improve student learning and achievement. Objective 1.5: Faculty continue to support student use of tutoring services. Objective 1.6: Faculty continue to receive training for both live and online delivery of courses in modern facilities and classrooms. Goal Four: Objective 4.1: Faculty remain committed to playing their role in enhancing college-wide dialog and linking department and institutional goals. Goal Five: Objective 5.2: Student learning outcomes were added to the System's Office reporting taxonomies, enhancing the evaluation of courses. Objective 5.3: SLO assessment for online courses continues at all levels of evaluation.
DATE:	
ANNUAL UPDATE #2:	

9. Goals/Objectives/Actions (ACTION PLAN)

A. **GOALS:** Formulate Program Goals to maintain or enhance program strengths, or to address identified weaknesses.

B. **ALIGNMENT:** Indicate how each Goal is aligned with the College's Strategic Priorities.

C. **OBJECTIVES:** Define Objectives for reaching each Goal.

D. **ACTIONS/TASKS REQUIRED TO ACHIEVE OBJECTIVE:** Create a coherent set of specific steps (Actions/Tasks) that must be taken to achieve each Objective.

E. **OUTCOMES:** State intended Outcomes and list appropriate measures and assessment methods for each Outcome.

F. **ADDITIONAL INFORMATION:** This area provides for the additional communication of information necessary to further "close the loop" on the goal or action plan, as it relates to Institutional Planning. This may include references to other institutional documents, such as governing or compliance documents (i.e. Board Policy, Administrative Procedures, Title V), institutional planning documents

(i.e. Strategic Plan, Educational Master Plan, Facilities Plan, Technology Plan), or Board, Presidential, Supervisory or Departmental recommendations or goals, etc. *(See Handbook for additional examples.)*

Complete the following table with your Program's **ACTION PLAN**, which must include a **minimum of 3 goals**:

ACTION PLAN					
	GOAL	ALIGNMENT WITH BCC STRATEGIC PRIORITIES (click link for list of Strategic Priorities)	OBJECTIVE	ACTIONS/TASKS REQUIRED TO ACHIEVE OBJECTIVE	OUTCOMES, MEASURES, and ASSESSMENT
#1	Provide students a successful college learning experience; aligns with Strategic Priority #2.	*List all that apply:* - **Foster** innovative learning environment - **Provide** Successful college learning experience - **Promote** and support student engagement - **Cultivate** and enhance local partnerships - **Attract**/develop excellent employees - **Strengthen** college planning/ decision making	#1 Plan and implement programs based on learning needs and career paths	- Evaluate prerequisites - Evaluate curriculum and add new classes as needed - Evaluate current career paths or job market	The COR is up to date and in compliance; the success and retention rates show improvement in critical areas; addition of new classes
			#2 Augment current and emerging technologies to foster student learning	- DE with new Moodle platform - Use of smartboards, tablet pcs,etc. - Computer simulations in the laboratory sciences and the use of the Math lab	Success, retention, and fill rates in online classes with the new more interactive platform. Student surveys on the use of computer simulations in labs
			#3		
	Additional Information:	We have students who are not prepared for the rigor of either math or science. Our chemistry course has no prerequisite and weak math students flail and fail when they try to take chemistry. By putting a prerequisite of Math 55 we should be able to increase our success rate by not putting students in the class who are primed to fail.			
	DATE: OCTOBER 2, 2013	ANNUAL UPDATE #1:	The first goal of the program remains and faculty are in the process of identifying ways in which the outcomes, measures, and assessment of success of the goal can be more quantifiably measured. In the past year, faculty have continued to ensure that all courses are in compliance, noted that retention rates are improving, and new classes are in development. The challenge for 2013-2014 will be to identify ways in which to measure and assess how successful faculty are in providing students with a successful college learning experiences.		
	DATE:	ANNUAL UPDATE #2:			
#2	Foster and improve offerings in regard to innovative learning environment that respects diversity; aligns with Strategic Priority #1	*List all that apply:*	#1 Offer programs and services for individual student populations	- Counselor data on services - Curriculum data from 2 and 4 year schools	Number of transfers; counselor data concerning transfer agreements; degree requirements from 2 and 4-year schools and universities.
			#2 Advance a culture of inclusion that promotes and appreciates the human condition	- Measured with SLOs and PLOs - Professional development and dialog on inclusive strategies	Analysis of the course level assessments and the program level assessments

ACTION PLAN					
	GOAL	ALIGNMENT WITH BCC STRATEGIC PRIORITIES (click link for list of Strategic Priorities)	OBJECTIVE	ACTIONS/TASKS REQUIRED TO ACHIEVE OBJECTIVE	OUTCOMES, MEASURES, and ASSESSMENT
			#3		
	Additional Information:	We need to make sure we have the best, if not the latest, equipment in the laboratory. Students need to be successful in the lab and working with antiquated or broken instrumentation is not the way to achieve success.			
	DATE: OCTOBER 2, 2013	ANNUAL UPDATE #1:	The second goal of the program remains and faculty are committed to providing innovative learning environments that respects diversity for students. To achieve this goal, faculty need laboratory equipment and professional development funding. Students need access to modern, fully functional instrumentation to be able to achieve success in the Natural Science and Mathematics program. Students benefit from faculty trained in research-based pedagogical approaches learned at professional development workshops and through continuing education opportunities.		
	DATE:	ANNUAL UPDATE #2:			
#3		*List all that apply:*	#1		
			#2		
			#3		
	Additional Information:				
	DATE:	ANNUAL UPDATE #1:			
	DATE:	ANNUAL UPDATE #2:			
#4		*List all that apply:*	#1		
			#2		
			#3		
	Additional Information:				
	DATE:	ANNUAL UPDATE #1:			
	DATE:	ANNUAL UPDATE #2:			

ACTION PLAN					
	GOAL	ALIGNMENT WITH BCC STRATEGIC PRIORITIES (click link for list of Strategic Priorities)	OBJECTIVE	ACTIONS/TASKS REQUIRED TO ACHIEVE OBJECTIVE	OUTCOMES, MEASURES, and ASSESSMENT
#5		*List all that apply:*	#1		
			#2		
			#3		
	Additional Information:				
	DATE:	ANNUAL UPDATE #1:			
	DATE:	ANNUAL UPDATE #2:			
#6		*List all that apply:*	#1		
			#2		
			#3		
	Additional Information:				
	DATE:	ANNUAL UPDATE #1:			
	DATE:	ANNUAL UPDATE #2:			

10. Resources Required

List all significant resources needed to achieve the objectives shown in the table above, including personnel, training, technology, information, equipment, supplies, and space. Every request for additional resources must support at least one objective.

Also list any resources required to implement planned improvements noted in 3.C.

IMPORTANT: A BUDGET ALLOCATION PROPOSAL must be completed and submitted for EACH new resource requested. *(Click the link to access the form.)*

Goal #	Objective #	Resource Required	Estimated Cost	BAP Required? Yes or No	If No, indicate funding source
		Microscopes	$60,000.00 (total cost for 3 years)		
		Vernier pH probes	$1200.00		
		Water distiller	$2000.00		
		Math instructor	$55,488 Salary $11,652 Benefits $15,900 Insur. Total= $83,040.00		
		Earth Sciences Computer Software	$2,500.00		
		DVDs for Earth Sciences	$1,500.00		
		Printer in T-14 Lab	$500.00		
		Computers in T-14 Lab	$23,800.00		
		Geology Equipment and Supplies	$2,500.00		

ANNUAL UPDATE #1: DATE: OCTOBER 2, 2013

Goal #	Objective #	Resource Required	Estimated Cost	BAP Required? Yes or No	If No, indicate funding source
1	2	Microscopes	$60,000.00 (total cost for 3 years)		
1	2	Vernier pH probes	$1200.00		
1	2	Water distiller	$2000.00		
1	1	Math instructor	$55,488 Salary $11,652 Benefits $15,900 Insur. Total= $83,040.00		

ANNUAL UPDATE #2: DATE:

Goal #	Objective #	Resource Required	Estimated Cost	BAP Required? Yes or No	If No, indicate funding source

FULL TIME			Enrolled	
			Traditional	**Online**
201207	Full Time	ASTR	34	0
		BIOL	192	145
		CHEM	28	0
		GEOL	23	0
		MATH	304	65
		PHSC	29	0
	Total		**533**	**206**
201303	Full Time	ASTR	34	0
		BIOL	210	117
		CHEM	32	0
		GEOL	22	0
		MATH	256	160
		OCEA	24	0
		PHSC	29	0
	Total		**514**	**274**
201305	Full Time	BIOL	45	55
		MATH	50	106
	Total		**95**	**160**
Total for All Terms:			**879**	**605**

PART TIME			Enrolled	
			Traditional	**Online**
201207	Part Time	ASTR	0	42
		BIOL	54	0
		GEOL	21	0
		MATH	199	200
	Total		**266**	**235**
201303	Part Time	ASTR	0	115
		BIOL	25	96
		GEOL	15	0
		MATH	244	351
		OCEA	21	0
	Total		**291**	**535**
201305	Part Time	ASTR	0	78
		BIOL	0	26
		MATH	33	137
	Total		**33**	**235**
Total for All Terms:			**533**	**940**

FULL TIME				Enrolled	
				Traditional	**Online**
201207	Full Time	20001 (ASTR 1)	Bulkley, Scott	28	0
		20002 (ASTR 1L)	Bulkley, Scott	17	0
		20003 (GEOL 1L)	Bulkley, Scott	23	0
		20004 (PHSC 2)	Bulkley, Scott	29	0
		20044 (BIOL 11)	Carter, Jamail D	0	34
		20046 (BIOL 11)	Carter, Jamail D	0	29
		20048 (BIOL 11)	Carter, Jamail D	40	0
		20057 (BIOL 10)	Stinson, Robert	0	48
		20058 (BIOL 10L)	Stinson, Robert	24	0
		20059 (BIOL 2)	Stinson, Robert	32	0
		20060 (BIOL 5)	Stinson, Robert	20	0
		20061 (BIOL 1)	Sage, Bret A.	0	39
		20062 (BIOL 2)	Sage, Bret A.	29	0
		20063 (BIOL 2)	Sage, Bret A.	15	0
		20064 (BIOL 4)	Sage, Bret A.	35	0
		20065 (MATH 3)	Van Den Berg, Sally J	52	0
		20066 (MATH 4A)	Van Den Berg, Sally J	32	0
		20067 (MATH 55)	Van Den Berg, Sally J	47	0
		20068 (MATH 5)	Van Den Berg, Sally J	16	0
		20069 (MATH 55)	Van Den Berg, Sally J	48	0
		20075 (MATH 101)	Vartanian, Sona	0	17
		20076 (MATH 101)	Vartanian, Sona	0	11
		20077 (MATH 50)	Vartanian, Sona	10	0
		20078 (MATH 55)	Vartanian, Sona	29	0
		20079 (MATH 2)	Vartanian, Sona	0	37
		20102 (CHEM 1)	Nelson, Philip D	28	0
		20103 (MATH 50)	Nelson, Philip D	33	0
		20104 (MATH 55)	Nelson, Philip D	21	0
		20105 (MATH 55)	Nelson, Philip D	16	0
		20346 (BIOL 10)	Stinson, Robert	24	0
		20472 (MATH 4C)	Van Den Berg, Sally J	1	0
	Total			**533**	**206**
201303	Full Time	40754 (OCEA 1)	Bulkley, Scott	24	0
		40755 (ASTR 1)	Bulkley, Scott	21	0
		40756 (ASTR 1L)	Bulkley, Scott	16	0
		40757 (GEOL 4)	Bulkley, Scott	22	0
		40758 (PHSC 2)	Bulkley, Scott	29	0
		40759 (BIOL 11)	Bento, Gustavo L	29	0
		40780 (BIOL 11)	Bento, Gustavo L	0	22
		40782 (BIOL 11)	Sage, Bret A.	0	30
		40784 (BIOL 11)	Bento, Gustavo L	26	0
		40786 (BIOL 11)	Sage, Bret A.	0	27
		40788 (BIOL 11)	Sage, Bret A.	0	21
		40790 (BIOL 2)	Sage, Bret A.	29	0
		40791 (BIOL 5)	Sage, Bret A.	40	0
		40792 (BIOL 2)	Stinson, Robert	29	0
		40793 (BIOL 4)	Stinson, Robert	38	0
		40794 (BIOL 8)	Stinson, Robert	37	0
		40795 (MATH 1)	Van Den Berg, Sally J	17	0
		40796 (MATH 3)	Van Den Berg, Sally J	41	0
		40797 (MATH 3)	Van Den Berg, Sally J	45	0
		40798 (MATH 4B)	Van Den Berg, Sally J	23	0
		40799 (MATH 55)	Van Den Berg, Sally J	46	0
		40913 (CHEM 1)	Nelson, Philip D	23	0
		40914 (MATH 50)	Nelson, Philip D	21	0
		40915 (MATH 55)	Nelson, Philip D	16	0
		40918 (MATH 3)	Van Den Berg, Sally J	0	42
		41168 (MATH 101)	Vartanian, Sona	15	0
		41170 (MATH 55)	Vartanian, Sona	12	0
		41183 (MATH 101)	Vartanian, Sona	0	18
		41195 (MATH 3)	Vartanian, Sona	24	0
		41204 (MATH 101)	Vartanian, Sona	0	11
		41237 (MATH 2)	Vartanian, Sona	0	40
		41249 (MATH 2)	Vartanian, Sona	0	28
		41286 (BIOL 2)	Sage, Bret A.	8	0
		41287 (CHEM 1)	Nelson, Philip D	9	0
		41351 (BIOL 11)	Bento, Gustavo L	0	17
		41363 (MATH 3)	Batarseh, Ayoub	0	22
	Total			**514**	**274**
201305	Full Time	80246 (BIOL 11)	Sage, Bret A.	0	38
		80247 (BIOL 11)	Sage, Bret A.	0	17
		80249 (BIOL 2)	Stinson, Robert	22	0
		80250 (MATH 50)	Van Den Berg, Sally J	24	0
		80251 (MATH 55)	Van Den Berg, Sally J	26	0
		80253 (MATH 55)	Vartanian, Sona	0	37
		80276 (MATH 2)	Batarseh, Ayoub	0	26

				Enrolled	
				Traditional	**Online**
201305	Full Time	80277 (BIOL 4)	Stinson, Robert	23	0
		80313 (MATH 2)	Vartanian, Sona	0	28
		80333 (MATH 50)	Vartanian, Sona	0	15
	Total			**95**	**160**
Total for All Terms:				**879**	**605**

PART TIME				Enrolled	
				Traditional	**Online**
201207	Part Time	20199 (ASTR 1)	Akers, Glenn	0	42
		20206 (MATH 50)	Weis, Anh	0	45
		20207 (MATH 55)	Yuan, Carl	0	76
		20218 (MATH 55)	Weis, Anh	29	0
		20240 (MATH 55)	Yuan, Carl	0	87
		20241 (BIOL 11)	Addison, Tanja	18	0
		20252 (MATH 55)	Sochis, Samuel	32	0
		20253 (MATH 50)	Sochis, Samuel	38	0
		20419 (BIOL 10)	Lewis, Paul A	22	0
		20426 (MATH 50)	Rubio, Jose	13	0
		20430 (GEOL 2)	Burchard, Ewa M	21	0
		20441 (BIOL 1)	Lewis, Paul A	14	0
		20442 (MATH 50)	Rubio, Jose	15	0
		20465 (MATH 101)	Naim, Rozaena	20	0
		20469 (MATH 101)	Naim, Rozaena	30	0
		20487 (MATH 101)	Duque, Rodolfo	15	0
		20488 (MATH 50)	Duque, Rodolfo	7	0
	Total			**266**	**235**
201303	Part Time	40815 (ASTR 1)	Akers, Glenn	0	46
		40816 (ASTR 1)	Akers, Glenn	0	41
		40901 (BIOL 1)	Walker, George F.	0	44
		40919 (MATH 55)	Leontas, Angela	0	47
		40920 (MATH 50)	Yuan, Carl	0	73
		40921 (MATH 55)	Yuan, Carl	0	77
		40923 (MATH 50)	Dorn, James H	0	45
		40924 (MATH 55)	Dorn, James H	0	38
		40925 (MATH 101)	Sochis, Samuel	30	0
		40926 (MATH 55)	Sochis, Samuel	23	0
		40927 (MATH 101)	Weis, Anh	37	0
		40928 (MATH 55)	Weis, Anh	11	0
		41018 (MATH 101)	Naim, Rozaena	28	0
		41019 (MATH 50)	Naim, Rozaena	30	0
		41161 (BIOL 11)	Dust, Kathryn	25	0
		41169 (MATH 50)	Rubio, Jose	17	0
		41193 (MATH 50)	Duque, Rodolfo	9	0
		41194 (MATH 55)	Rubio, Jose	30	0
		41199 (OCEA 1)	Burchard, Ewa M	21	0
		41267 (MATH 50)	Duque, Rodolfo	16	0
		41274 (MATH 50)	Duque, Rodolfo	19	0
		41279 (ASTR 1)	Akers, Glenn	0	29
		41324 (GEOL 2)	Burchard, Ewa M	15	0
		41341 (BIOL 1)	Walker, George F.	0	28
		41360 (MATH 2)	Ivy, Jessica D	0	36
		41361 (MATH 55)	Esperanza, Peter Joseph M	0	28
		41362 (MATH 50)	Esperanza, Peter Joseph M	0	23
		41371 (MATH 50)	Dawson, Shelly	0	20
		41381 (BIOL 11)	Jelly, Joann	0	26
	Total			**291**	**535**
201305	Part Time	80214 (ASTR 1)	Akers, Glenn	0	36
		80216 (BIOL 11)	Bento, Gustavo L	0	26
		80252 (MATH 101)	Duque, Rodolfo	33	0
		80263 (MATH 50)	Yuan, Carl	0	65
		80297 (ASTR 1)	Akers, Glenn	0	42
		80299 (MATH 55)	Thomas, Aaron C	0	35
		80312 (MATH 1)	Yuan, Carl	0	37
	Total			**33**	**235**
Total for All Terms:				**533**	**940**

CRN/Subj/Crse	Enrolled at Census	Successful Completers	Success
Full Time			
Traditional			
201207			
ASTR			
20001 ASTR 1	28	18	64%
20002 ASTR 1L	17	14	82%
BIOL			
20048 BIOL 11	40	31	78%
20058 BIOL 10L	24	12	50%
20059 BIOL 2	33	24	73%
20060 BIOL 5	21	19	90%
20062 BIOL 2	29	24	83%
20063 BIOL 2	15	14	93%
20064 BIOL 4	35	28	80%
20346 BIOL 10	25	14	56%
CHEM			
20102 CHEM 1	28	17	61%
GEOL			
20003 GEOL 1L	23	19	83%
MATH			
20065 MATH 3	52	50	96%
20066 MATH 4A	32	32	100%
20067 MATH 55	47	43	91%
20068 MATH 5	16	13	81%
20069 MATH 55	49	41	84%
20077 MATH 50	11	10	100%
20078 MATH 55	32	22	69%
20103 MATH 50	35	15	43%
20104 MATH 55	23	10	43%
20105 MATH 55	17	8	47%
20472 MATH 4C	1	1	100%
PHSC			
20004 PHSC 2	29	20	69%
201303			
ASTR			
40755 ASTR 1	21	12	57%
40756 ASTR 1L	15	14	93%
BIOL			
40759 BIOL 11	32	21	66%
40784 BIOL 11	32	18	56%
40790 BIOL 2	29	25	86%
40791 BIOL 5	40	37	93%
40792 BIOL 2	29	29	100%
40793 BIOL 4	38	30	79%
40794 BIOL 8	37	34	92%
41286 BIOL 2	8	5	63%
CHEM			
40913 CHEM 1	24	11	46%
41287 CHEM 1	10	2	20%
GEOL			
40757 GEOL 4	22	18	82%
MATH			
40795 MATH 1	17	17	100%
40796 MATH 3	41	35	85%
40797 MATH 3	45	45	100%
40798 MATH 4B	23	21	91%
40799 MATH 55	46	35	76%
40914 MATH 50	24	12	50%
40915 MATH 55	19	9	50%
41168 MATH 101	15	12	80%

	CRN/Subj/Crse	Enrolled at Census	Successful Completers	Success
	41170 MATH 55	11	10	83%
	41195 MATH 3	23	18	75%
OCEA				
	40754 OCEA 1	24	17	71%
PHSC				
	40758 PHSC 2	29	21	72%
201305				
BIOL				
	80249 BIOL 2	22	19	86%
	80277 BIOL 4	23	21	91%
MATH				
	80250 MATH 50	24	22	92%
	80251 MATH 55	26	22	85%
	Summary for Full Time - Traditional:	1,411	1,091	77%

Online

201207				
BIOL				
	20044 BIOL 11	36	24	71%
	20046 BIOL 11	32	20	69%
	20057 BIOL 10	48	35	73%
	20061 BIOL 1	39	24	62%
MATH				
	20075 MATH 101	17	13	76%
	20076 MATH 101	21	5	24%
	20079 MATH 2	43	28	65%
201303				
BIOL				
	40780 BIOL 11	22	14	64%
	40782 BIOL 11	30	21	70%
	40786 BIOL 11	29	15	52%
	40788 BIOL 11	25	17	68%
	41351 BIOL 11	20	12	60%
MATH				
	40918 MATH 3	42	30	71%
	41183 MATH 101	18	12	67%
	41204 MATH 101	11	9	82%
	41237 MATH 2	40	20	50%
	41249 MATH 2	28	20	71%
	41363 MATH 3	25	20	80%
201305				
BIOL				
	80246 BIOL 11	38	31	82%
	80247 BIOL 11	17	11	65%
MATH				
	80253 MATH 55	37	24	65%
	80276 MATH 2	26	20	77%
	80313 MATH 2	28	12	43%
	80333 MATH 50	15	12	80%
	Summary for Full Time - Online:	687	449	66%

Part Time

Traditional

201207				
BIOL				
	20241 BIOL 11	18	12	67%
	20419 BIOL 10	22	17	77%

	CRN/Subj/Crse	Enrolled at Census	Successful Completers	Success
	20441 BIOL 1	29	12	86%
GEOL				
	20430 GEOL 2	29	17	59%
MATH				
	20218 MATH 55	31	19	61%
	20252 MATH 55	35	16	46%
	20253 MATH 50	40	28	70%
	20426 MATH 50	14	11	73%
	20442 MATH 50	17	13	76%
	20465 MATH 101	22	15	68%
	20469 MATH 101	35	22	63%
	20487 MATH 101	15	13	87%
	20488 MATH 50	8	6	75%
201303				
BIOL				
	41161 BIOL 11	25	23	92%
GEOL				
	41324 GEOL 2	15	13	87%
MATH				
	40925 MATH 101	31	22	71%
	40926 MATH 55	24	12	50%
	40927 MATH 101	43	29	67%
	40928 MATH 55	13	9	69%
	41018 MATH 101	30	19	63%
	41019 MATH 50	30	16	53%
	41169 MATH 50	17	12	71%
	41193 MATH 50	9	9	100%
	41194 MATH 55	29	25	83%
	41267 MATH 50	16	11	69%
	41274 MATH 50	23	15	65%
OCEA				
	41199 OCEA 1	20	19	90%
201305				
MATH				
	80252 MATH 101	34	31	91%
	Summary for Part Time - Traditional:	674	466	70%

Online

201207				
ASTR				
	20199 ASTR 1	46	35	76%
MATH				
	20206 MATH 50	50	25	50%
	20207 MATH 55	83	55	66%
	20240 MATH 55	87	67	77%
201303				
ASTR				
	40815 ASTR 1	47	41	85%
	40816 ASTR 1	48	34	71%
	41279 ASTR 1	40	21	53%
BIOL				
	40901 BIOL 1	47	42	89%
	41341 BIOL 1	29	21	72%
	41381 BIOL 11	26	13	50%
MATH				
	40919 MATH 55	46	27	57%
	40920 MATH 50	73	53	73%
	40921 MATH 55	85	62	73%
	40923 MATH 50	45	22	49%

	CRN/Subj/Crse	Enrolled at Census	Successful Completers	Success
	40924 MATH 55	50	22	44%
	41360 MATH 2	37	19	51%
	41361 MATH 55	28	16	57%
	41362 MATH 50	23	12	52%
	41371 MATH 50	20	6	30%
201305				
ASTR				
	80214 ASTR 1	45	28	62%
	80297 ASTR 1	44	34	77%
BIOL				
	80216 BIOL 11	25	20	77%
MATH				
	80263 MATH 50	65	53	82%
	80299 MATH 55	35	20	57%
	80312 MATH 1	37	33	89%
	Summary for Part Time - Online:	1,161	781	67%

CRN/Subj/Crse	Max:	Enrollment Att	1st Day	Census	EOT	Fill Rate(%) 1st Day/Max	Census/Max	EOT/Max
Full Time								
Traditional								
201207								
ASTR								
20001 ASTR 1	30	33	33	28	24	110.00	93.33	80.00
20002 ASTR 1L	20	21	21	17	16	105.00	85.00	80.00
BIOL								
20048 BIOL 11	40	44	44	40	38	110.00	100.00	95.00
20058 BIOL 10L	30	30	30	24	17	100.00	80.00	56.67
20059 BIOL 2	30	36	35	33	31	116.67	110.00	103.33
20060 BIOL 5	30	26	26	21	19	86.67	70.00	63.33
20062 BIOL 2	44	34	33	29	29	75.00	65.91	65.91
20063 BIOL 2	44	18	16	15	14	36.36	34.09	31.82
20064 BIOL 4	32	36	36	35	33	112.50	109.38	103.13
20346 BIOL 10	30	36	36	25	20	120.00	83.33	66.67
CHEM								
20102 CHEM 1	32	36	36	29	23	112.50	90.63	71.88
GEOL								
20003 GEOL 1L	30	31	31	23	21	103.33	76.67	70.00
MATH								
20065 MATH 3	40	58	56	52	52	140.00	130.00	130.00
20066 MATH 4A	40	34	34	32	32	85.00	80.00	80.00
20067 MATH 55	40	49	49	47	46	122.50	117.50	115.00
20068 MATH 5	40	21	19	16	14	47.50	40.00	35.00
20069 MATH 55	40	51	51	49	46	127.50	122.50	115.00
20077 MATH 50	30	15	14	11	9	46.67	36.67	30.00
20078 MATH 55	30	39	36	32	26	120.00	106.67	86.67
20103 MATH 50	40	43	43	35	28	107.50	87.50	70.00
20104 MATH 55	40	37	36	23	19	90.00	57.50	47.50
20105 MATH 55	40	21	21	17	11	52.50	42.50	27.50
20472 MATH 4C	1	1	1	1	1	100.00	100.00	100.00
PHSC								
20004 PHSC 2	30	32	30	29	25	100.00	96.67	83.33
201303								
ASTR								
40755 ASTR 1	32	31	31	23	18	96.88	71.88	56.25
40756 ASTR 1L	20	21	21	17	15	105.00	85.00	75.00
BIOL								
40759 BIOL 11	40	36	36	32	28	90.00	80.00	70.00
40784 BIOL 11	40	39	39	32	25	97.50	80.00	62.50
40790 BIOL 2	37	35	31	29	28	83.78	78.38	75.68
40791 BIOL 5	30	43	42	40	39	140.00	133.33	130.00
40792 BIOL 2	30	33	32	29	29	106.67	96.67	96.67
40793 BIOL 4	30	40	39	38	33	130.00	126.67	110.00
40794 BIOL 8	30	37	37	37	35	123.33	123.33	116.67
41286 BIOL 2	37	10	9	8	8	24.32	21.62	21.62
CHEM								
40913 CHEM 1	34	29	29	24	17	85.29	70.59	50.00
41287 CHEM 1	34	14	14	10	7	41.18	29.41	20.59
GEOL								
40757 GEOL 4	32	24	24	22	20	75.00	68.75	62.50
MATH								
40795 MATH 1	40	18	18	17	17	45.00	42.50	42.50
40796 MATH 3	40	48	45	41	40	112.50	102.50	100.00
40797 MATH 3	40	50	49	45	45	122.50	112.50	112.50
40798 MATH 4B	24	23	23	23	21	95.83	95.83	87.50
40799 MATH 55	40	50	48	46	46	120.00	115.00	115.00
40914 MATH 50	40	39	35	24	17	87.50	60.00	42.50
40915 MATH 55	40	21	21	19	12	52.50	47.50	30.00
41168 MATH 101	30	17	17	15	15	56.67	50.00	50.00
41170 MATH 55	30	14	13	11	11	43.33	36.67	36.67

	CRN/Subj/Crse	Max:	Enrollment Att	1st Day	Census	EOT	Fill Rate(%) 1st Day/Max	Census/Max	EOT/Max
	41195 MATH 3	30	32	29	23	21	96.67	76.67	70.00
OCEA									
	40754 OCEA 1	32	25	25	24	24	78.13	75.00	75.00
PHSC									
	40758 PHSC 2	32	33	33	29	26	103.13	90.63	81.25
201305									
BIOL									
	80249 BIOL 2	30	27	26	22	22	86.67	73.33	73.33
	80277 BIOL 4	30	25	24	23	23	80.00	76.67	76.67
MATH									
	80250 MATH 50	40	29	27	24	24	67.50	60.00	60.00
	80251 MATH 55	40	30	27	26	25	67.50	65.00	62.50
Summary for Full Time - Traditional:		1,787	1,655	1,611	1,416	1,285	90.15%	79.24%	71.91%
Online									
201207									
BIOL									
	20044 BIOL 11	50	41	40	36	32	80.00	72.00	64.00
	20046 BIOL 11	50	34	34	32	27	68.00	64.00	54.00
	20057 BIOL 10	50	61	60	48	45	120.00	96.00	90.00
	20061 BIOL 1	50	50	50	39	36	100.00	78.00	72.00
MATH									
	20075 MATH 101	30	27	27	17	16	90.00	56.67	53.33
	20076 MATH 101	30	24	24	21	8	80.00	70.00	26.67
	20079 MATH 2	50	50	49	43	32	98.00	86.00	64.00
201303									
BIOL									
	40780 BIOL 11	50	34	33	22	22	66.00	44.00	44.00
	40782 BIOL 11	50	32	31	30	29	62.00	60.00	58.00
	40786 BIOL 11	50	34	34	29	26	68.00	58.00	52.00
	40788 BIOL 11	50	35	31	25	21	62.00	50.00	42.00
	41351 BIOL 11	50	38	29	20	16	58.00	40.00	32.00
MATH									
	40918 MATH 3	50	49	49	42	37	98.00	84.00	74.00
	41183 MATH 101	30	30	29	18	18	96.67	60.00	60.00
	41204 MATH 101	30	20	20	11	11	66.67	36.67	36.67
	41237 MATH 2	50	50	48	40	27	96.00	80.00	54.00
	41249 MATH 2	30	31	31	28	26	103.33	93.33	86.67
	41363 MATH 3	50	31	31	25	21	62.00	50.00	42.00
201305									
BIOL									
	80246 BIOL 11	50	42	42	38	38	84.00	76.00	76.00
	80247 BIOL 11	50	25	23	17	15	46.00	34.00	30.00
MATH									
	80253 MATH 55	50	51	49	37	35	98.00	74.00	70.00
	80276 MATH 2	30	32	32	26	24	106.67	86.67	80.00
	80313 MATH 2	50	46	45	28	16	90.00	56.00	32.00
	80333 MATH 50	30	21	19	15	13	63.33	50.00	43.33
Summary for Full Time - Online:		1,060	888	860	687	591	81.13%	64.81%	55.75%
Part Time									
Traditional									
201207									
BIOL									
	20241 BIOL 11	40	27	26	18	18	65.00	45.00	45.00

	CRN/Subj/Crse	Max:	Enrollment Att	1st Day	Census	EOT	Fill Rate(%) 1st Day/Max	Census/Max	EOT/Max
	20419 BIOL 10	30	29	29	22	20	96.67	73.33	66.67
	20441 BIOL 1	30	31	29	29	13	96.67	96.67	43.33
GEOL									
	20430 GEOL 2	30	32	32	29	20	106.67	96.67	66.67
MATH									
	20218 MATH 55	40	41	41	31	24	102.50	77.50	60.00
	20252 MATH 55	40	42	42	35	25	105.00	87.50	62.50
	20253 MATH 50	40	45	44	40	37	110.00	100.00	92.50
	20426 MATH 50	30	15	14	14	10	46.67	46.67	33.33
	20442 MATH 50	30	20	20	17	14	66.67	56.67	46.67
	20465 MATH 101	24	30	30	22	18	125.00	91.67	75.00
	20469 MATH 101	40	41	41	35	28	102.50	87.50	70.00
	20487 MATH 101	24	17	17	17	15	70.83	70.83	62.50
	20488 MATH 50	24	12	12	8	6	50.00	33.33	25.00
201303									
BIOL									
	41161 BIOL 11	30	27	27	25	24	90.00	83.33	80.00
GEOL									
	41324 GEOL 2	30	18	18	15	15	60.00	50.00	50.00
MATH									
	40925 MATH 101	40	41	40	31	29	100.00	77.50	72.50
	40926 MATH 55	40	28	27	24	22	67.50	60.00	55.00
	40927 MATH 101	40	45	45	44	35	112.50	110.00	87.50
	40928 MATH 55	24	17	16	13	10	66.67	54.17	41.67
	41018 MATH 101	24	32	32	30	24	133.33	125.00	100.00
	41019 MATH 50	24	36	35	30	21	145.83	125.00	87.50
	41169 MATH 50	30	19	18	17	13	60.00	56.67	43.33
	41193 MATH 50	30	11	11	9	9	36.67	30.00	30.00
	41194 MATH 55	30	38	32	29	28	106.67	96.67	93.33
	41267 MATH 50	40	19	18	16	15	45.00	40.00	37.50
	41274 MATH 50	24	26	26	23	18	108.33	95.83	75.00
OCEA									
	41199 OCEA 1	30	23	22	20	20	73.33	66.67	66.67
201305									
MATH									
	80252 MATH 101	40	41	41	34	32	102.50	85.00	80.00
Summary for Part Time - Traditional:		898	803	785	677	563	87.42%	75.39%	62.69%
Online									
201207									
ASTR									
	20199 ASTR 1	50	50	49	46	40	98.00	92.00	80.00
MATH									
	20206 MATH 50	50	56	55	50	40	110.00	100.00	80.00
	20207 MATH 55	80	91	89	83	74	111.25	103.75	92.50
	20240 MATH 55	80	98	97	87	85	121.25	108.75	106.25
201303									
ASTR									
	40815 ASTR 1	50	54	51	47	42	102.00	94.00	84.00
	40816 ASTR 1	50	53	51	48	36	102.00	96.00	72.00
	41279 ASTR 1	50	47	47	40	23	94.00	80.00	46.00
BIOL									
	40901 BIOL 1	50	57	56	47	42	112.00	94.00	84.00
	41341 BIOL 1	50	36	36	29	26	72.00	58.00	52.00
	41381 BIOL 11	50	33	33	26	25	66.00	52.00	50.00
MATH									

	CRN/Subj/Crse	Max:	Enrollment Att	1st Day	Census	EOT	Fill Rate(%) 1st Day/Max	Census/Max	EOT/Max
	40919 MATH 55	50	50	48	46	35	96.00	92.00	70.00
	40920 MATH 50	80	85	85	73	69	106.25	91.25	86.25
	40921 MATH 55	80	93	89	85	72	111.25	106.25	90.00
	40923 MATH 50	50	52	51	45	38	102.00	90.00	76.00
	40924 MATH 55	50	55	54	50	35	108.00	100.00	70.00
	41360 MATH 2	50	44	44	37	28	88.00	74.00	56.00
	41361 MATH 55	50	31	31	28	24	62.00	56.00	48.00
	41362 MATH 50	50	26	26	23	22	52.00	46.00	44.00
	41371 MATH 50	50	22	22	20	18	44.00	40.00	36.00
201305									
ASTR									
	80214 ASTR 1	50	52	50	45	28	100.00	90.00	56.00
	80297 ASTR 1	50	52	51	44	34	102.00	88.00	68.00
BIOL									
	80216 BIOL 11	50	38	36	26	24	72.00	52.00	48.00
MATH									
	80263 MATH 50	70	78	75	65	63	107.14	92.86	90.00
	80299 MATH 55	50	53	50	35	32	100.00	70.00	64.00
	80312 MATH 1	50	44	44	37	36	88.00	74.00	72.00
	Summary for Part Time - Online:	1,390	1,350	1,320	1,162	991	94.96%	83.60%	71.29%

		Full Time	Part Time
201207	ASTR	1	1
	BIOL	3	2
	CHEM	1	0
	GEOL	1	1
	MATH	3	6
	PHSC	1	0
	Total	**7**	**10**
201303	ASTR	1	1
	BIOL	3	3
	CHEM	1	0
	GEOL	1	1
	MATH	4	11
	OCEA	1	1
	PHSC	1	0
	Total	**8**	**16**
201305	ASTR	0	1
	BIOL	2	1
	MATH	3	3
	Total	**5**	**5**
Total for All Terms:		**9**	**20**

				Full Time	Part Time
201207	ASTR	20001 (ASTR 1)	Bulkley, Scott	1	0
		20002 (ASTR 1L)	Bulkley, Scott	1	0
		20199 (ASTR 1)	Akers, Glenn	0	1
	BIOL	20044 (BIOL 11)	Carter, Jamail D	1	0
		20046 (BIOL 11)	Carter, Jamail D	1	0
		20048 (BIOL 11)	Carter, Jamail D	1	0
		20057 (BIOL 10)	Stinson, Robert	1	0
		20058 (BIOL 10L)	Stinson, Robert	1	0
		20059 (BIOL 2)	Stinson, Robert	1	0
		20060 (BIOL 5)	Stinson, Robert	1	0
		20061 (BIOL 1)	Sage, Bret A.	1	0
		20062 (BIOL 2)	Sage, Bret A.	1	0
		20063 (BIOL 2)	Sage, Bret A.	1	0
		20064 (BIOL 4)	Sage, Bret A.	1	0
		20241 (BIOL 11)	Addison, Tanja	0	1
		20346 (BIOL 10)	Stinson, Robert	1	0
		20419 (BIOL 10)	Lewis, Paul A	0	1
		20441 (BIOL 1)	Lewis, Paul A	0	1
	CHEM	20102 (CHEM 1)	Nelson, Philip D	1	0
	GEOL	20003 (GEOL 1L)	Bulkley, Scott	1	0
		20430 (GEOL 2)	Burchard, Ewa M	0	1
	MATH	20065 (MATH 3)	Van Den Berg, Sally J	1	0
		20066 (MATH 4A)	Van Den Berg, Sally J	1	0
		20067 (MATH 55)	Van Den Berg, Sally J	1	0
		20068 (MATH 5)	Van Den Berg, Sally J	1	0
		20069 (MATH 55)	Van Den Berg, Sally J	1	0
		20075 (MATH 101)	Vartanian, Sona	1	0
		20076 (MATH 101)	Vartanian, Sona	1	0
		20077 (MATH 50)	Vartanian, Sona	1	0
		20078 (MATH 55)	Vartanian, Sona	1	0
		20079 (MATH 2)	Vartanian, Sona	1	0
		20103 (MATH 50)	Nelson, Philip D	1	0
		20104 (MATH 55)	Nelson, Philip D	1	0
		20105 (MATH 55)	Nelson, Philip D	1	0
		20206 (MATH 50)	Weis, Anh	0	1
		20207 (MATH 55)	Yuan, Carl	0	1
		20218 (MATH 55)	Weis, Anh	0	1
		20240 (MATH 55)	Yuan, Carl	0	1
		20252 (MATH 55)	Sochis, Samuel	0	1
		20253 (MATH 50)	Sochis, Samuel	0	1
		20426 (MATH 50)	Rubio, Jose	0	1
		20442 (MATH 50)	Rubio, Jose	0	1
		20465 (MATH 101)	Naim, Rozaena	0	1
		20469 (MATH 101)	Naim, Rozaena	0	1
		20472 (MATH 4C)	Van Den Berg, Sally J	1	0
		20487 (MATH 101)	Duque, Rodolfo	0	1
		20488 (MATH 50)	Duque, Rodolfo	0	1
	PHSC	20004 (PHSC 2)	Bulkley, Scott	1	0
	Total			**7**	**10**
201303	ASTR	40755 (ASTR 1)	Bulkley, Scott	1	0
		40756 (ASTR 1L)	Bulkley, Scott	1	0
		40815 (ASTR 1)	Akers, Glenn	0	1
		40816 (ASTR 1)	Akers, Glenn	0	1
		41279 (ASTR 1)	Akers, Glenn	0	1
	BIOL	40759 (BIOL 11)	Bento, Gustavo L	1	0
		40780 (BIOL 11)	Bento, Gustavo L	1	0
		40782 (BIOL 11)	Sage, Bret A.	1	0
		40784 (BIOL 11)	Bento, Gustavo L	1	0
		40786 (BIOL 11)	Sage, Bret A.	1	0
		40788 (BIOL 11)	Sage, Bret A.	1	0
		40790 (BIOL 2)	Sage, Bret A.	1	0
		40791 (BIOL 5)	Sage, Bret A.	1	0
		40792 (BIOL 2)	Stinson, Robert	1	0
		40793 (BIOL 4)	Stinson, Robert	1	0
		40794 (BIOL 8)	Stinson, Robert	1	0
		40901 (BIOL 1)	Walker, George F.	0	1
		41161 (BIOL 11)	Dust, Kathryn	0	1
		41286 (BIOL 2)	Sage, Bret A.	1	0
		41341 (BIOL 1)	Walker, George F.	0	1
		41351 (BIOL 11)	Bento, Gustavo L	1	0
		41381 (BIOL 11)	Jelly, Joann	0	1
	CHEM	40913 (CHEM 1)	Nelson, Philip D	1	0
		41287 (CHEM 1)	Nelson, Philip D	1	0
	GEOL	40757 (GEOL 4)	Bulkley, Scott	1	0
		41324 (GEOL 2)	Burchard, Ewa M	0	1
	MATH	40795 (MATH 1)	Van Den Berg, Sally J	1	0
		40796 (MATH 3)	Van Den Berg, Sally J	1	0
		40797 (MATH 3)	Van Den Berg, Sally J	1	0
		40798 (MATH 4B)	Van Den Berg, Sally J	1	0

				Full Time	Part Time
201303	MATH	40799 (MATH 55)	Van Den Berg, Sally J	1	0
		40914 (MATH 50)	Nelson, Philip D	1	0
		40915 (MATH 55)	Nelson, Philip D	1	0
		40918 (MATH 3)	Van Den Berg, Sally J	1	0
		40919 (MATH 55)	Leontas, Angela	0	1
		40920 (MATH 50)	Yuan, Carl	0	1
		40921 (MATH 55)	Yuan, Carl	0	1
		40923 (MATH 50)	Dorn, James H	0	1
		40924 (MATH 55)	Dorn, James H	0	1
		40925 (MATH 101)	Sochis, Samuel	0	1
		40926 (MATH 55)	Sochis, Samuel	0	1
		40927 (MATH 101)	Weis, Anh	0	1
		40928 (MATH 55)	Weis, Anh	0	1
		41018 (MATH 101)	Naim, Rozaena	0	1
		41019 (MATH 50)	Naim, Rozaena	0	1
		41168 (MATH 101)	Vartanian, Sona	1	0
		41169 (MATH 50)	Rubio, Jose	0	1
		41170 (MATH 55)	Vartanian, Sona	1	0
		41183 (MATH 101)	Vartanian, Sona	1	0
		41193 (MATH 50)	Duque, Rodolfo	0	1
		41194 (MATH 55)	Rubio, Jose	0	1
		41195 (MATH 3)	Vartanian, Sona	1	0
		41204 (MATH 101)	Vartanian, Sona	1	0
		41237 (MATH 2)	Vartanian, Sona	1	0
		41249 (MATH 2)	Vartanian, Sona	1	0
		41267 (MATH 50)	Duque, Rodolfo	0	1
		41274 (MATH 50)	Duque, Rodolfo	0	1
		41360 (MATH 2)	Ivy, Jessica D	0	1
		41361 (MATH 55)	Esperanza, Peter Joseph M	0	1
		41362 (MATH 50)	Esperanza, Peter Joseph M	0	1
		41363 (MATH 3)	Batarseh, Ayoub	1	0
		41371 (MATH 50)	Dawson, Shelly	0	1
	OCEA	40754 (OCEA 1)	Bulkley, Scott	1	0
		41199 (OCEA 1)	Burchard, Ewa M	0	1
	PHSC	40758 (PHSC 2)	Bulkley, Scott	1	0
	Total			**8**	**16**
201305	ASTR	80214 (ASTR 1)	Akers, Glenn	0	1
		80297 (ASTR 1)	Akers, Glenn	0	1
	BIOL	80216 (BIOL 11)	Bento, Gustavo L	0	1
		80246 (BIOL 11)	Sage, Bret A.	1	0
		80247 (BIOL 11)	Sage, Bret A.	1	0
		80249 (BIOL 2)	Stinson, Robert	1	0
		80277 (BIOL 4)	Stinson, Robert	1	0
	MATH	80250 (MATH 50)	Van Den Berg, Sally J	1	0
		80251 (MATH 55)	Van Den Berg, Sally J	1	0
		80252 (MATH 101)	Duque, Rodolfo	0	1
		80253 (MATH 55)	Vartanian, Sona	1	0
		80263 (MATH 50)	Yuan, Carl	0	1
		80276 (MATH 2)	Batarseh, Ayoub	1	0
		80299 (MATH 55)	Thomas, Aaron C	0	1
		80312 (MATH 1)	Yuan, Carl	0	1
		80313 (MATH 2)	Vartanian, Sona	1	0
		80333 (MATH 50)	Vartanian, Sona	1	0
	Total			**5**	**5**
Total for All Terms:				**9**	**20**