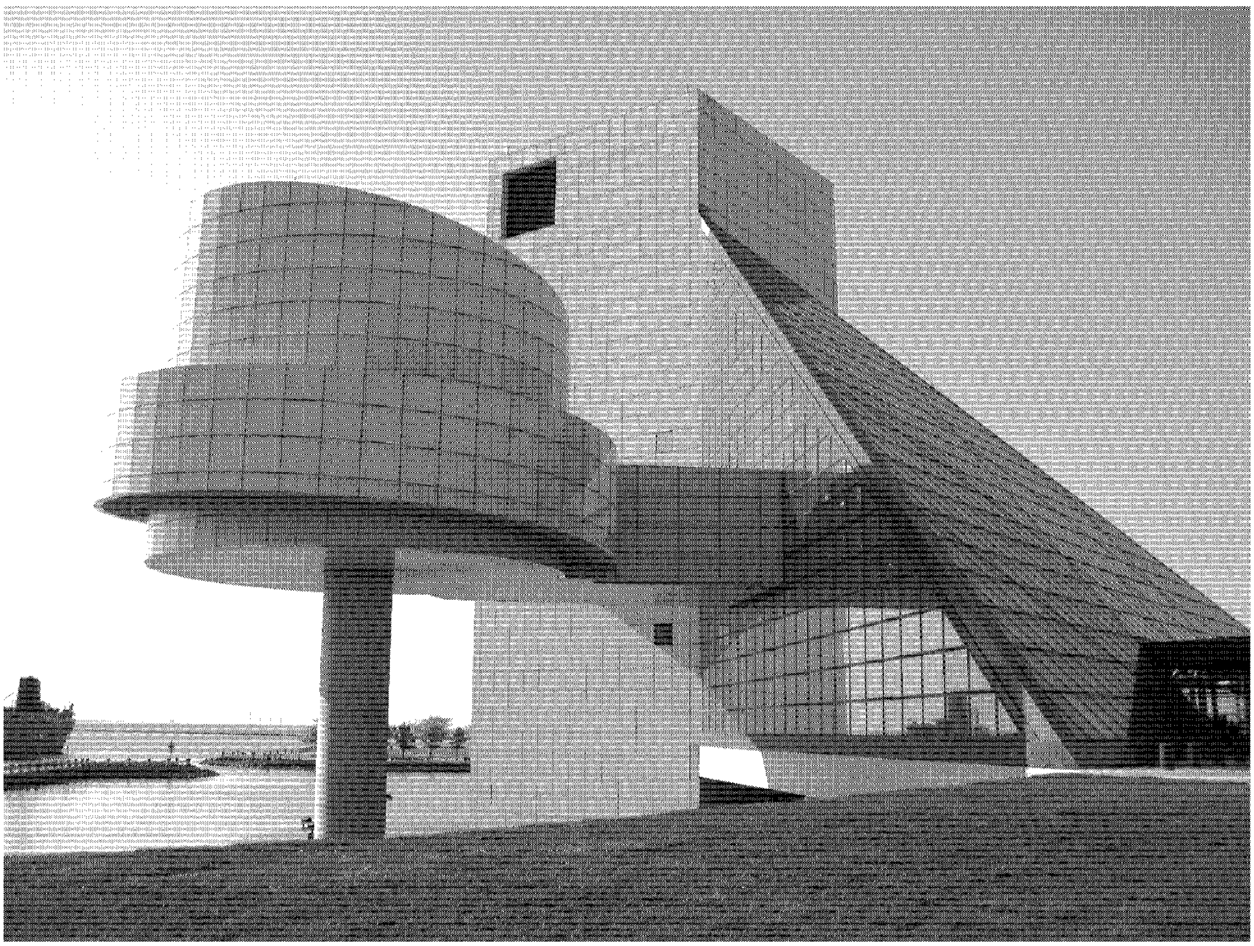
Grossmont College

Mathematics Department



Program Review

Fall 2005 – Spring 2011

This Program Review Report for 2005 – 2011 is submitted by the members of the Grossmont College Department of Mathematics.

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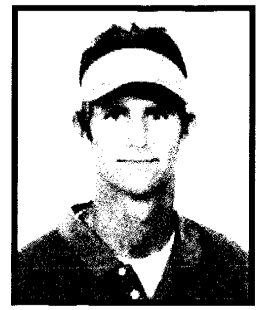

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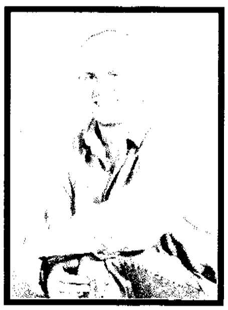

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SECTION 1 - BRIEF DESCRIPTION AND HISTORY OF THE PROGRAM

1.1 Introduce the self-study with a brief department history. Include changes in staffing, curriculum, facilities, etc.

The importance of learning mathematics for today's students continues to be critical to their success, and the Grossmont College Mathematics Department has historically responded to the challenge of helping more students not only pass but learn mathematics. Over the years, the department championed the use of technology as well as hands on learning with mathematical manipulatives, hired faculty with teaching talents and skills for working with developmental as well as transfer students, and created pathways and support systems to help mathematics students be successful. Innovations are standard in the department and new ideas are constantly debated and tested to determine which strategies have the greatest positive effect on learning mathematics.

Since 2005, the department has seen the departure of four full-time faculty: Peg Hovde, Ann Kmet, Bob Chow and Jim Tarvin. All four contributed many years of teaching and efforts to help students, and with the retirements of Peg, Ann and Bob, many years of departmental memory are gone. Also during this time, the department hired three new full-time faculty members: Corey Manchester, Arturo Millan and Shawn Hicks. These three men have immediately made an impact and continue to contribute to the success of the department, yet with their hires, full time math faculty number only 15 – with 3 positions unfilled at this time. Many part-time faculty members have been hired to replace other part-timers who left Grossmont for one reason or another, and part timers continue to teach a majority of the instructional hours offered in mathematics. It should also be noted that over this last program review cycle, our division has experienced many changes in leadership. In the last three years alone, we have had four different people serve as dean or temporary dean (Jerry Buckley, Chris Hill, Cary Willard and Mike Reese). These changes have had an influence on the ability of the division and the department to solve problems and plan for the future.

Basic skills instruction and success became a hot topic of the department's work since 2005 because of the state sponsored Basic Skills Initiative. With extra funding for basic skills projects, the department continued to innovate by purchasing hard ware (such as clickers), scheduling workshops and special tutoring, and re-packaging basic skills courses designed to immerse students in the content of developmental courses through the Math Academy. Faculty in the department have been able to rethink curriculum, student learning outcomes, teaching and learning strategies, and infrastructure needs to better serve basic skills students. The department undertook a district-wide review of assessment scores and placement in math courses which resulted in new cut-off scores which should improve student learning in basic skills courses. Also, to help make math more relevant to basic skills students, the math department has developed some "linked" courses with other departments on campus. These will be discussed later in this document.

At the same time that the department focused on the needs of basic skills students, efforts to improve opportunities for transfer students were also underway. The Calculus students were encouraged to seek an associate degree in mathematics with a brochure developed by the department through a college grant. The department recognizes the role it plays in recruiting more STEM students at the associate and bachelor's degree levels. The Elementary Statistics course is planning a unit change from 3 to 4 units and is awaiting approval by the college curriculum committee.

Members of the department are on the front edge of student success in many different ways. Online courses were added to the schedule of mathematics offerings in Math 103, Intermediate Algebra, and Math 160, Elementary Statistics. Faculty members continue to participate in conferences, whenever possible, as presenters or participants to learn of other innovative technologies, curriculum or strategies. The department has been proactive in assessing and rewriting student learning outcomes for courses thereby completing the assessment loop many times over the last few years.

The Math Study Center (MSC) retains its key function in helping students achieve success. The MSC continues to offer tutoring and study space for students, and newly arranged workshops and dedicated basic skills help now accompany the regular menu of peer and faculty tutoring. Space for math tutoring continues to be challenge as more students place into the foundational courses offered through the department.

Rarely will a college have a mathematics department that is as responsive, involved, willing to reflect on change, and dedicated to making decisions that are best for students like the department at Grossmont. The faculty members, both full and part time, are dedicated to improving instruction and learning opportunities for students at all levels.

Program Goals

1.2 Appendix 1 contains the most recent 6-year Unit Plan for the program. From the 6-year Unit Plan, select your most successful and least successful goals and answer the following questions:

For your most successful goal:

a) What activities did you undertake to achieve this goal?
b) Report and explain the data you have to verify progress toward your goal.
c) How did the achievement of this goal help move the college forward toward fulfillment of the planning priority goals in its strategic plan?

For your least successful goal:

a) What challenges or obstacles have you encountered?
b) Has this goal changed and why?

Most Successful Goal

(Goal #7) Encourage and increase math faculty participation in college and district level committees, taskforces, and leadership positions.

1.2a What activities did you undertake to achieve this goal?

Since the last cycle of program review, the culture within the department has changed significantly and with it an increased commitment by members of the department in college wide governance. Under the leadership of our co-department chairpersons Susan Working and Jenny Vanden Eynden, the internal decision making within the department has dramatically improved. Most problems are solved by building consensus or by using a system of protocols developed by Michael Lines during the last program review cycle when reaching a consensus seems difficult. Our department chairs are very good at keeping us informed and aware of campus issues that require our attention. They keep us focused on problems until decisions get made, which is not always easy through hectic moments of the school year. We have made many difficult decisions over the last few years (personnel, how to spend money, use of facilities) and the new culture within the department has allowed us to meet these challenges very successfully. Dealing with these challenges has also motivated members of the department to get involved campus wide, lending their voices to solving college level issues through the recent difficult budget times. Also worth noting is the commitment of recent department hires to serve in school governance. Maybe good leadership breeds more leadership, but our new faculty members are very willing to get involved and be leaders at the college level. The same can be stated for many of our adjunct faculty who also serve in the academic senate or other committees on campus.

One example of how these changes in department culture have led to improved commitment to college decision making is the recent push to help students who enter Grossmont College with skills below college level. Our department leadership insured we discuss the issue regularly in department meetings. We looked for solutions at several levels; classroom, department and college. Once the department had determined a course of action, our members quickly moved into positions of leadership on campus committees that would enable us to help the college solve the problems these students face. More information regarding our departments goals and processes for helping these students appear throughout this document. What is important to focus on here, is this general approach to problem solving has been repeated many times within the mathematics department for the many issues that we have had to face over the last six years.

1.2b Report and explain the data you have to verify progress toward your goal.

To see evidence of how our department members have affected college level governance, one simply needs to review the many positions of leadership our members hold.

To begin, Beth Smith served as the Academic Senate president for the college through some very difficult times when there were constant battles between the college and the governing board during the last program review cycle. She has since moved on to serve in the Academic Senate at the state level, first as a member, then as Treasurer and currently as the Vice President. Beth has worked on the implementation of the associate degrees for transfer, SB 1440, 2010), especially the review of each transfer model curriculum and specifically the mathematics portions of each. She has also been involved in writing several papers for the state Academic Senate on various topics from basic skills to counseling to program discontinuance. One of the key documents she worked on is the guide for implementing prerequisites of English, reading or mathematics on courses outside those disciplines. The department is also proud to see her articles published in the State Senate Rostrum.

Steve Davis has been involved with the Program Review Committee for many years now and is currently one of its co-chairpersons. Steve has been a leader who is always trying to improve the program review process and increase its relevance to the departments they serve. He has been instrumental in helping the Program Review Committee work more collegially with both the Integrated Planning Process and district's Institutional Research department. The results have garnered many commendations for Grossmont College through several accreditation cycles.

Corey Manchester has worked very hard for the student success committee and is currently one of its co-chairpersons. He has also recently been given the task of being a co-chair of the accreditation Standard I. As a co-chair of the Student Success Committee, Corey has continued to ensure that all student success interventions funded by the California Basic

Skills Initiative are progressing effectively and efficiently. Multiple interventions have proven successful and will be continually monitored for financial responsibility and student success. As co-chair of the accreditation Standard I, Corey spent the 2011-2012 academic year conducting the self-study on all aspects of our college mission statement and our institutional effectiveness. After reviewing all procedures, activities and campus wide inclusion in these procedures and activities, it was determined that Grossmont College met the criteria set by the accrediting commission.

Shirley Pereira has been a key player for the development of the new "planning process" and has recently been given the title of Research Liaison for the college. Our department actually prefers to call her the "data sage." She has been instrumental in helping various departments and groups on campus make sense of the data that affects them. The data can help them become aware of problems many never knew existed or never knew to what extent an issue may have affected their students. If knowledge is power, then Shirley has begun the process of empowering these departments and groups to understand the real issues that they must face with regards to the college's educational master plan.

Jeff Waller has been working with the curriculum committee and is currently one of its co-chairpersons. He has helped them organize a new process to align course outlines, student learning outcomes and transfer requirements that should help future students become more successful. Jeff was also the lead on a new website that helps departments throughout the campus deal with the current issue of Transfer Model Curriculum and Transfer Degrees.

Nemie Capacia, Jeff Waller and Shawn Hicks have all coordinated the Math Study Center, a position which not only affects the mathematics department but also influences and interacts with tutoring campus wide. While specifics of the Math Study Center will be discussed in other sections of this report, for now let us focus on how the Math Study Center coordinator must be actively involved in the planning process of the college which has an emphasis on serving the needs of basic skills and transfer students.

Irene Palacios has been a campus leader in the Technology in Teaching and Learning Committee and the development of Web based courses for the college. With regard to distance education, Irene has been a trailblazer in search of making distance education as "real time" and "interactive" as possible. Her online students can watch her teach just as though they were in her classroom. They can ask questions at any time, just as though they were attending a standard class. Irene has also been a resource to other instructors at the college who are trying to improve the quality of their distance education courses. For more information you can see section 2.8 of this document.

Not to be overlooked, many more of our members have been part of hiring committees for campus leaders, student success committee members, academic senate members, petitions committee members, enrollment strategy committee members, room utilization committee members, academic integrity task force members, etc. Also, adjunct faculty member Michael Lambe is presently the adjunct faculty officer on the senate leadership committee and adjunct faculty members Michael Orr and Dan Greenheck are adjunct representatives for the department and the division. In short, the mathematics department plays a huge part in the governance and decision making at Grossmont College.

1.2c How did the achievement of this goal help move the college forward toward fulfillment of the planning priority goals in its strategic plan?

The math department has been very involved with regard to increasing the success of various underserved populations. At the college wide level, Shirley Pereira has been able to increase the awareness of problems these students face by providing data that illustrates many issues facing these students. Corey Manchester and the student success committee have studied the college wide processes that affect these students and have laid out various plans to improve their situation at the college. An example of an outcome from the work of the student success committee is the creation of the "linked course" with other departments. By "linking" our Math 120 course with an English 120, students work on projects relevant to both subjects and with common students. Studies have shown that similar programs have increased the success and retention of students and we seem to be having some success as well.

At the department level, we are focusing more each year on developmental mathematics students and trying to increase their success. Data suggested two major issues have really been barriers. First, someone who begins at Grossmont in pre-algebra or our math 88, may spend two years time completing the coursework needed just to get into college level mathematics courses like statistics or calculus. Furthermore, if they were unsuccessful in one of these courses then their chances of reaching their degree goal is severely diminished. To help address these issues, the mathematics department created the coordinator position to focus on the needs of the developmental mathematics students. Shirley Pereira and Nemie Capacia have both served as this coordinator and have each made major contributions. Shirley and our developmental math committee were instrumental in developing a class known as the math academy which has been extremely successful at getting students through two courses, math 88 and math 90, in one academic term. Students focus on nine units of math in one academic term and may take only one other class while they are in the academy. The success rates in the academy also lead us to believe that having students focus on fewer types of academic classes also may lead to better understanding in their math course. Nemie and the developmental math committee have increased the number of math academy sections, created workbooks for math 88 and math 90 and are currently trying to enhance the alignment of the developmental curriculum from math 88 through math 110. The goal of this alignment is to streamline the coursework needed by developmental students who presently may need nearly two years to complete the work required just to get into college level mathematics courses. Also, the Math Study Center is attempting to create a special area to serve the needs of developmental students. Presently, we are still struggling to find an adequate facility for this purpose but we are trying to adapt the present center as best we can. This issue will be discussed in greater detail later in this report.

The math department has also been active in the campus goal of increasing the success of transfer students. At the state level, Beth Smith has been very involved in developing the associate degree for transfers and the transfer model curriculum. At the college level, Jeff Waller and the curriculum committee have done lots of work trying to clarify and streamline the course work needed to transfer. We have done similar planning at the department level. A few years ago, Beth Smith and others worked on increasing the awareness of the Grossmont College students of our AS degree in mathematics, which aligns well with many advanced degrees in math, physics or engineering. Recently, when the department looked at the state's transfer model plans, we made some adjustments in our associate degree in mathematics for better alignment and believe it too will increase the number of our graduates.

With regard to the college goal of maximizing student access, many issues exist. Two main ones are trying to match the number of sections of courses to meet our students' needs and to ensure that we have the required classroom space. Department chairs Jenny Vanden Enyden and Susan Working have done exceptional work trying to maximize student access to our courses, even within the current severe budget situation. This requires meeting the needs of a very diverse student body with a huge range of academic issues and making tough choices when the budget requires that the number of course offering must be reduced. Furthermore, Jenny, Susan and Steve Davis and others have also been very involved in trying to optimize our facility usage. Adequate classroom space is difficult to find and what there is must be carefully administered to ensure that we can accommodate the greatest number of students. Steve Davis even lead the development of a plan for the mathematics departments vision of how to meet our classroom and tutoring needs in the newly remodeled 300 north building. Although our plan was not used, it was one event that helped us to clarify our facility needs for the future.

Finally, the mathematics department has contributed to the college goal of bringing exceptional and diverse leadership to the campus. Our faculty has served on the hiring committees of several vice presidents and deans for the college. We feel the involvement of our members in some many campus wide activities and committees gives them the institutional knowledge and history needed when choosing people to serve in leadership positions.

Least Successful Goal

(Goal #5) Centralize and increase the facilities of the mathematics program . This would include space for large, well thought-out, technologically updated math classrooms, an expanded math study center to include a Basic Skills tutoring area, math faculty offices and math computer lab space.

1.2a What challenges or obstacles have you encountered?

The mathematics department has encountered many obstacles attempting to get updated classrooms and increased tutoring space. As we watched other buildings rise on campus, we realized that we were very late making our needs aware to the greater college plan. Initially, we had to have many internal department discussions to clarify what are needs were. For example, we had to decide what a modern mathematics classroom looked like. Decisions like how big the classrooms should be, their shape, technological and pedagogical issues, etc. were all needed to plan for the future needs of our students. With regards to providing tutoring and creating the Math Study Center, we have come to realize that our original estimates for our needs were not adequate. When we were given space in the new technology mall we were so excited to have a tutoring facility we never dreamed that it would not be enough for our current needs. Furthermore, we have also been frustrated with "turf wars" over tutoring space at a time when our current space is severely limited and not really adequately laid out. Maybe most important, we have come to realize that our concerns were not being addressed because we did not have proper representation on the committees that decide what facilities will be funded. Also, we have found that with the many personnel changes in leadership at the college, that the facilities planning process has changed many times. And finally, as we have become more prepared to make our case for better facilities to the college community, the state budget situation has become dire and money for building new facilities is much harder to come by.

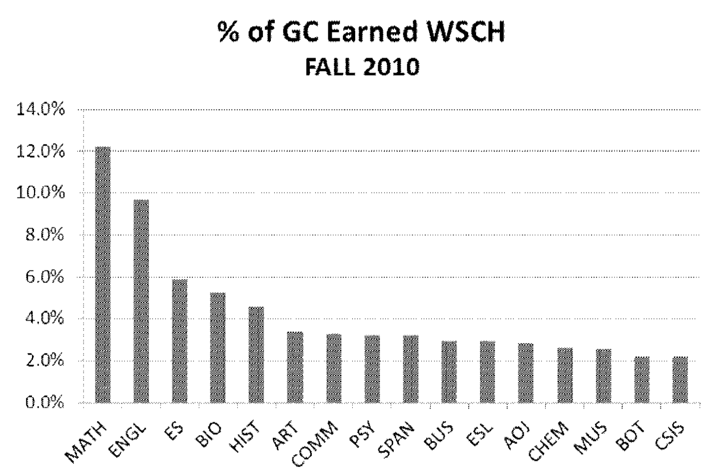
1.2b Has this goal changed and why?

As the years go by, the demands for upgraded mathematics facilities continue to increase. We teach in classrooms filled to capacity and many students have a poor view of the front board or are packed into desks that seem too cramped for adequate learning. Our rooms were sufficient when classes were smaller, but when filled to capacity students are often too far away or at a difficult viewing angle during lectures. Also, when sections are filled to capacity, most of our classrooms are nearly impossible to move around freely inside, making it very difficult to serve students with questions. With the increased use of web based information and graphing calculators, instructors must often raise and lower projection screens or turn lights on and off repeatedly during lectures so they also can use white board space for other things. Finally, since we have more sections than available mathematics classrooms, many of our classes are taught in rooms designed for other purposes.

With regard to tutoring, our needs have out grown our current space. It is safe to say that initially predicting the required size and scope of a proper tutoring facility was difficult from the start. Presently, we do serve many transfer level students very well in our current Math Study Center. However, we have barely begun to meet the needs of basic skills students. We now feel that these students need their own area, even physically separated from other students and devoted to their needs. Many of us feel the same could be said for the special needs of our statistics students. Together, basic skills and statistics students represent a huge portion of our clientele and learning mathematics conceptually is very challenging for both of these groups. We feel now that we could provide a much better degree of service to them if they had physically separate tutoring areas staffed with tutors trained to handle the special needs of each of these populations.

Another issue the mathematics department staff members struggle with is that we are all physically separated in offices around the campus. The few times we meet up during the semester are often great collegial moments that really should occur with more frequency. Instead we send an e-mail or a leave phone message which does not really provide the opportunity for meaningful dialogue about department issues or mathematical pedagogy. We know our department communication would be vastly improved with offices centrally located allowing us to see one another regularly.

In our opinion, the Grossmont College mathematics department and the English department, two of the largest on campus, have sat by and watched as other departments have built new facilities with bond money while we continue to teach in very outdated classrooms and attempt to provide tutoring assistance in less than adequate facilities. While it is true that other departments also had needs for updated facilities, the mathematics department is often referred to as a "cash cow" of the campus because of the money we generate for Grossmont College. One way to observe our fundraising capability is when you see how the department compares to others in the percent of weekly student contact hours for the college, WSCH. We will show you others in section 10 of this document.



Most students also must take English courses to earn their degrees and certificates. Stated another way, we are the departments that have the greatest effect on students since they must pass through us to acquire their degrees and certificates. Therefore, to meet the goals of the college as stated in the strategic plan, it would seem very logical to upgrade the facilities of these two departments if for no other reason than most of our students must pass through them on their way to graduation or transfer. A more compelling argument is that the future graduates of Grossmont College will require enhanced communication and mathematic skills to compete in the modern global economy and we know that we can provide better services with improved facilities.

Implementation of Past Program Review Recommendations

1.3 Your program 6-year Unit Plan in Appendix 1 contains the most recent Academic Program Review Committee recommendations for the program. Describe changes that have been made in the program in response to recommendations from the last review.

In 2005, the Program Review Committee offered the following recommendations:

1. Replace full-time faculty as they separate and hire three additional full-time faculty.

The department has lost four members (Peg Hovde, Bob Chow, Jim Tarvin and Ann Kmet) and gained three members (Corey Manchester, Shawn Hicks and Arturo Millan) since the last program review cycle. Currently the department has fifteen full time teachers. The recommendation was to hire three additional members, so no progress has been made.

2. Pursue the allocation of .35 LED for a faculty coordinator for the Math Study Center.

The department has the allocation of .35 LED for our faculty coordinator of the Math Study Center.

3. Secure at least $100,000 annually to staff the Math Study Center.

The Math Study Center is currently fully funded.

4. Acquire funds to support mentoring new faculty and conference attendance.

The math department has not been able to acquire any funding to support mentoring new faculty or for attending conferences. We do send our faculty to some conferences and pay for it with money from our textbook publisher Pearson and their Center for Excellence.

5. Create plan for maintaining and upgrading technology.

We have been relatively successful at finding funding to upgrade our office computers. Some upgrades have been provided by the college and some improvements have come from donations from textbook publishers.

6. Assess, clarify and support the role of the course coordinators to ensure department consistency.

The role of the course coordinator in the mathematics department is still being defined. In general we attempt to help new faculty be prepared to teach their sections by providing syllabi and sample exams. As the implementation of student learning outcomes evolves the course coordinators are expected to facilitate the development of test questions and the data collection. The overall consistency from section to section has improved since the creation of course coordinators within the department.

7. Create department data committee to research program trends and evaluate strengths and weaknesses for program improvement.

We have never created an actual data committee within the mathematics department. However, we have many examples of collecting and using data to make improvements in our program which highlighted throughout this document.

8. Establish an implementation plan and review process for existing department policies and procedures and continue development.

The department uses the protocols and procedures developed by Michael Lines to ensure fairness when we are required to make difficult decisions. Also, they are used when important decisions are made that require documentation. The process has been working well.

9. Collaboratively write student-learning outcomes and collectively agree upon their assessment methods to be written in course syllabi. Use student-learning outcome data for continued course and program improvement.

The department has collaboratively written student learning outcomes for all of our courses and agreed upon a method of assessment. The student learning outcomes have been added to all of our syllabi. We are continuing to monitor and improve the assessments and the data collection process. This process is explained in detail in section 3 of this document.

10. Using the Course History Information Report, continue to submit curriculum modification proposals for those courses that have not been reviewed by the Curriculum Committee in more than four years or curriculum deletion forms for those courses that have not been offered in the last three years. We have recently updated all the course outlines for the courses on our new transfer degree and the remaining should be updated by the spring of 2014.

The department has been updating all our course outlines and ensuring that they match well with the examples given in the C-ID, Course Identification Numbering System.

SECTION 2 - CURRICULUM DEVELOPMENT AND ACADEMIC STANDARDS

2.1 Review your courses outlines and explain how these outlines reflect currency in the field and relevance to student needs, as well as current teaching practices.

The course outlines related to the Department of Mathematics reflect current course descriptions, objectives, content, and text books. This currency ensures proper alignment and continuity between math courses at Grossmont College as well as with other programs and learning institutions. It also ensures consistency in instruction among equivalent courses. The outlines also include current Student Learning Outcomes, which are continually being tested and analyzed to help promote better instruction and higher levels of student success. The course outlines help perspective students prepare for their courses as well as inform them of expected exiting skills. As technology increases and becomes more prevalent in the educational setting, the course outlines will be updated to include other modes of instruction and evaluation, such as online instruction and collaboration, computer programs, graphics, and assignments. It should be noted that the mathematics department has recently updated many of our course outlines to match the California C-ID descriptions to ease the alignment between our college and transfer institutions throughout the state.

2.2 What orientation do you give to new faculty (both full- and part-time) regarding curricular expectations (i.e. SLOs and teaching to course outlines), academic standards, and department practices? How do you maintain an ongoing dialogue regarding these areas? You are encouraged to use feedback from your Faculty Survey discussion.

New faculty members meet with the department chairs upon hire. They are given syllabi, course outlines, and sample exams. The department chairpersons explain in detail our expectations of faculty as well as those of the college. The new faculty member is then given a tour of the campus and shown specifically where important offices and support services are located. They are also encouraged to contact their course coordinators to get updated course outlines, sample syllabi, sample tests or any other information they may need about teaching a specific course. If they have not contacted the coordinator by our flex week meetings, new faculty are introduced to the course coordinators and again encouraged to contact them for any help they need throughout the semester. Course coordinators send out e-mails throughout the term to establish the proper pacing of the curriculum and to notify faculty of the student learning outcome assessments to be used that term. Coordinators are also encouraged to reach out to new faculty and be supportive.

2.3 Give some examples of how your department members keep their instruction (i.e. delivery, content, materials, syllabus) current and relevant to student academic and/or career needs.

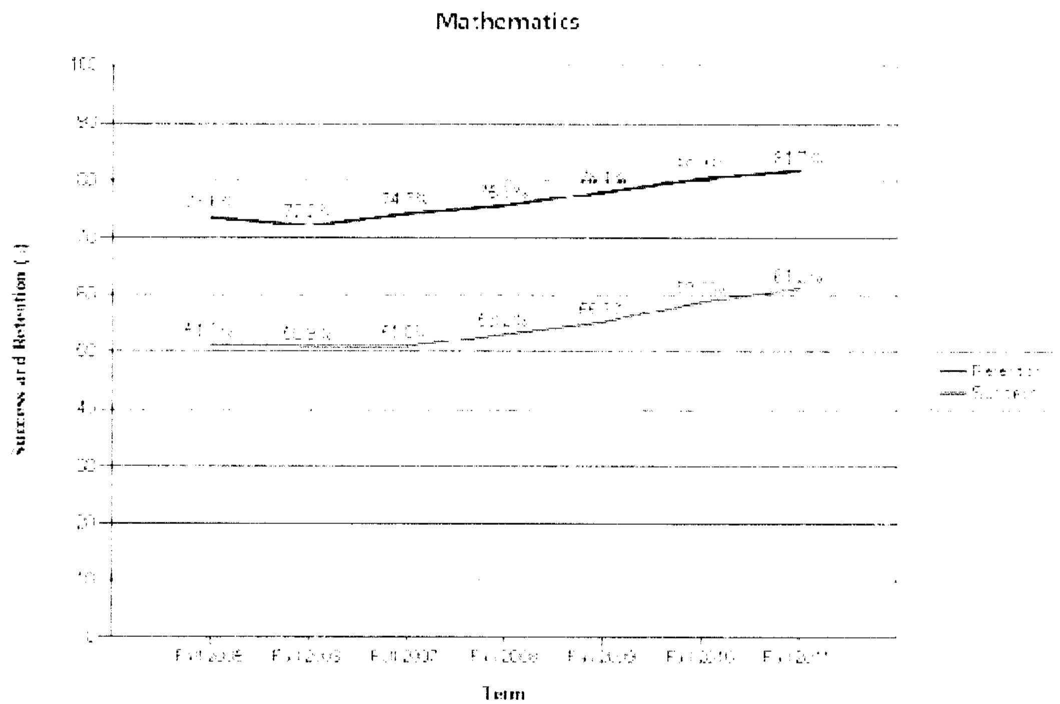
Faculty members generally rely on staff development workshops and conference to keep their instruction current. The internet also provides lots of information that may not be available at conferences. Our faculty also keeps updated by reading magazines, journals and books from organizations like the Mathematical Association of America or The American Mathematical Association of Two Year Colleges.

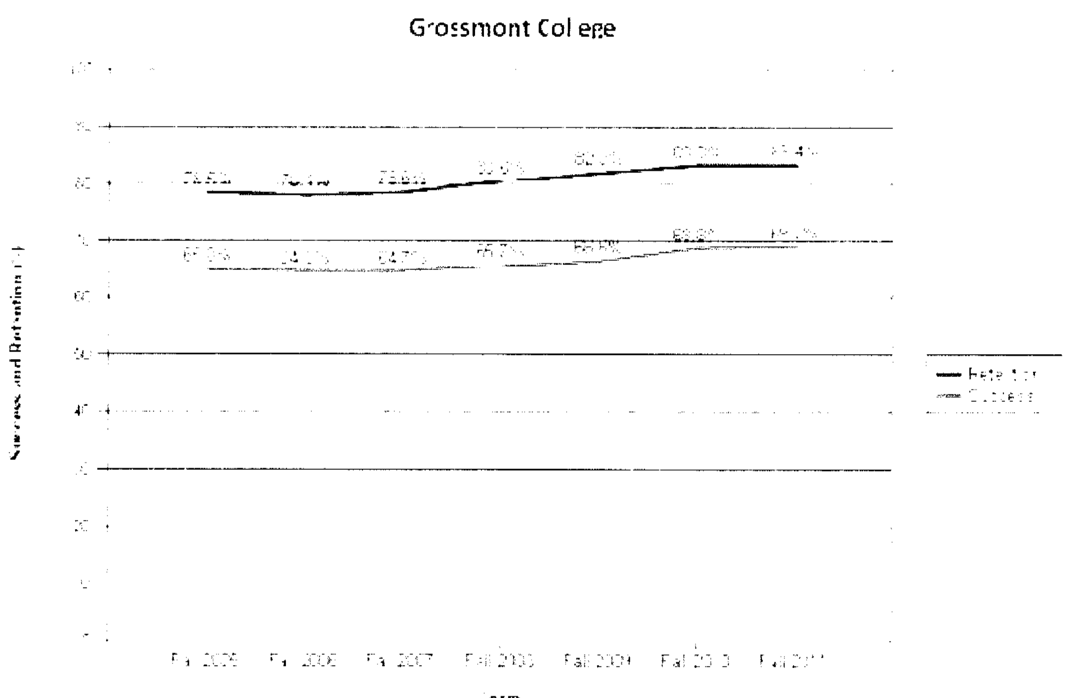
Another example of instructors keeping content, materials, activities, and delivery relevant to students' academic and career needs is evident in our Elementary Algebra Allied Health Link. This particular section of Math 90 is a career-based, contextualized learning community linked with English 98 and English 98R. While the core curriculum is no different from any other Math 90 section, the content is enhanced with health career-specific examples, activities, and group work that are integrated with the English content.

In response to having instruction relevant to student career needs, we have several courses devoted to students who may wish to try the teaching profession. The sequence of courses Math 125, 126 and 128 are to prepare elementary school teachers for transfer to the CSU system. Also, the recent development of Math 177 was in response to the need for more secondary school mathematics teachers. It serves as a initial experience for students interested in teaching math at the middle school or high school level.

2.4 Analyze the data in Appendix 3 - Grade Distribution Summary. Identify and explain any unusual retention patterns or grading variances. (To figure retention percentages, subtract the "W's" from the total enrollment and divide that result by the total enrollment.)

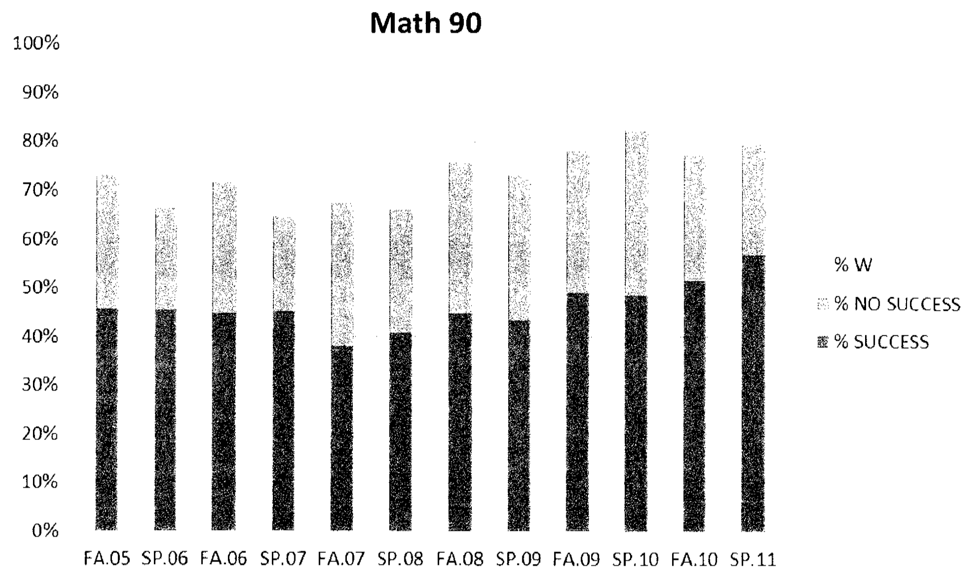
The mathematics department has seen a substantial overall improvement in both retention and success throughout all of the courses in our program over the last six years. While our rates remain lower than those of the college, they are increasing at a faster rate than those of the college.



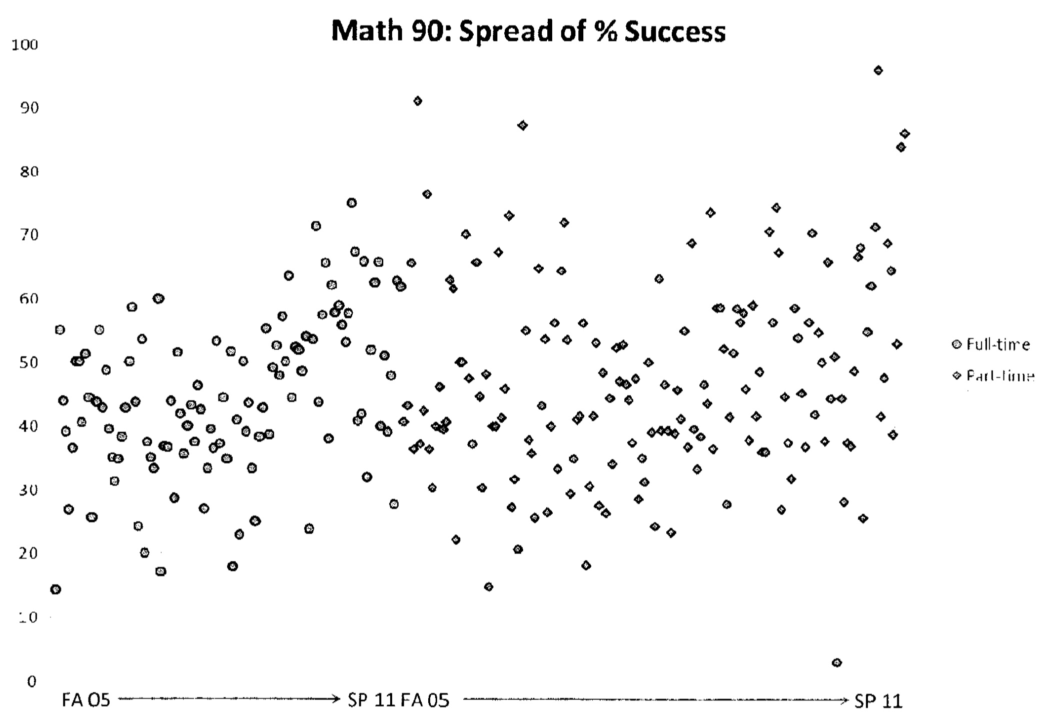


We have focused our analysis of retention and grade variance patterns to four courses which vary across the spectrum of courses we offer; Math 90, Math 110, Math 160 and Math 280.

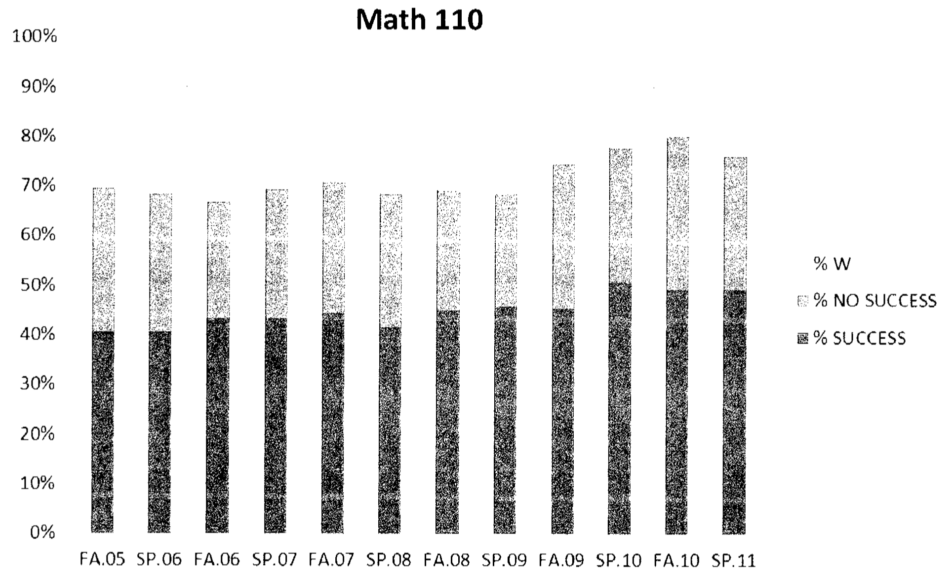
To begin with, in Math 90 the overall retention has increased from roughly 70% up to 80%. Success has increased from roughly 45% up to 55%.



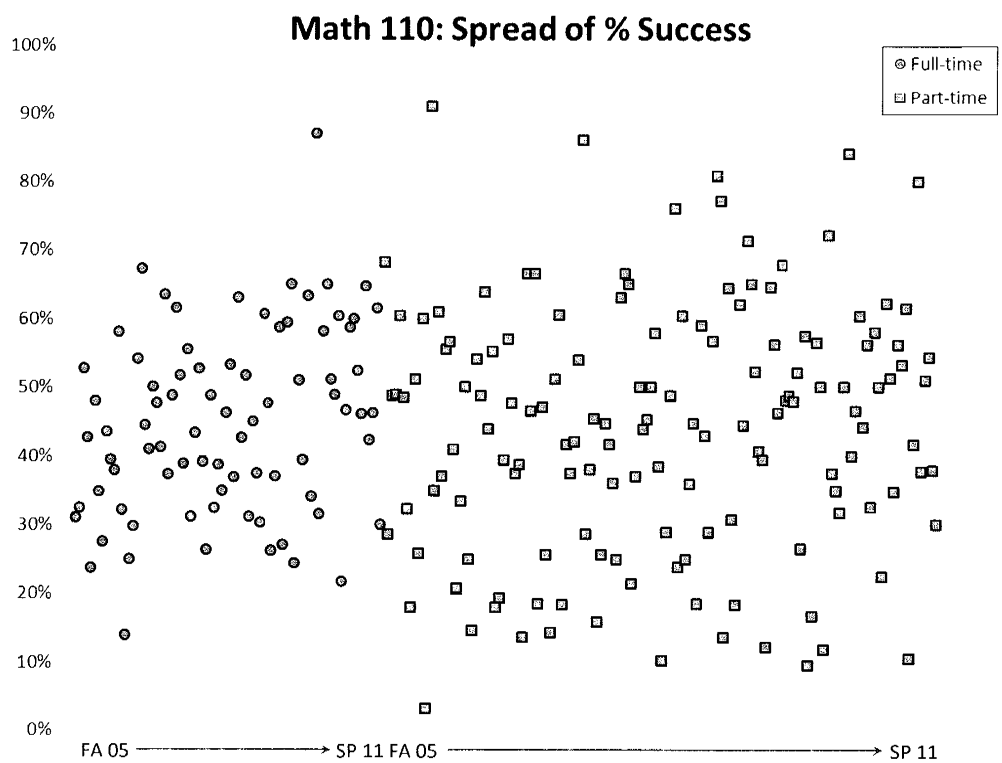
An analysis of grading variance shows a wide range of success rates, with full timers slight less variable. The average success rate of full time faculty over the six year period was 44.5% and the part time faculty had 47.1%. Also, our graphic shows both groups success rates increasing over the six year period.



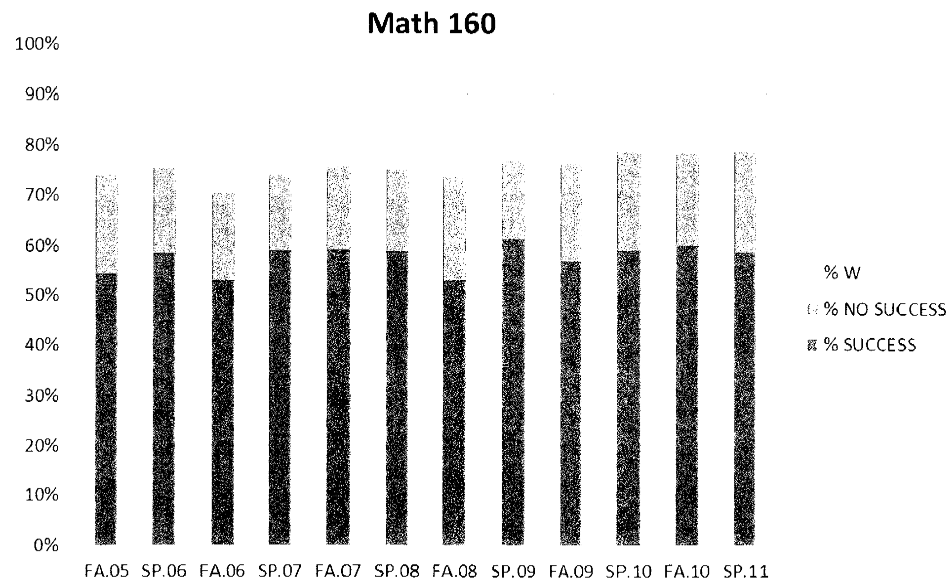
In Math 110, the overall retention has increased from roughly 70% to 76%. Success rates have increased steadily from roughly 40% to 50%.



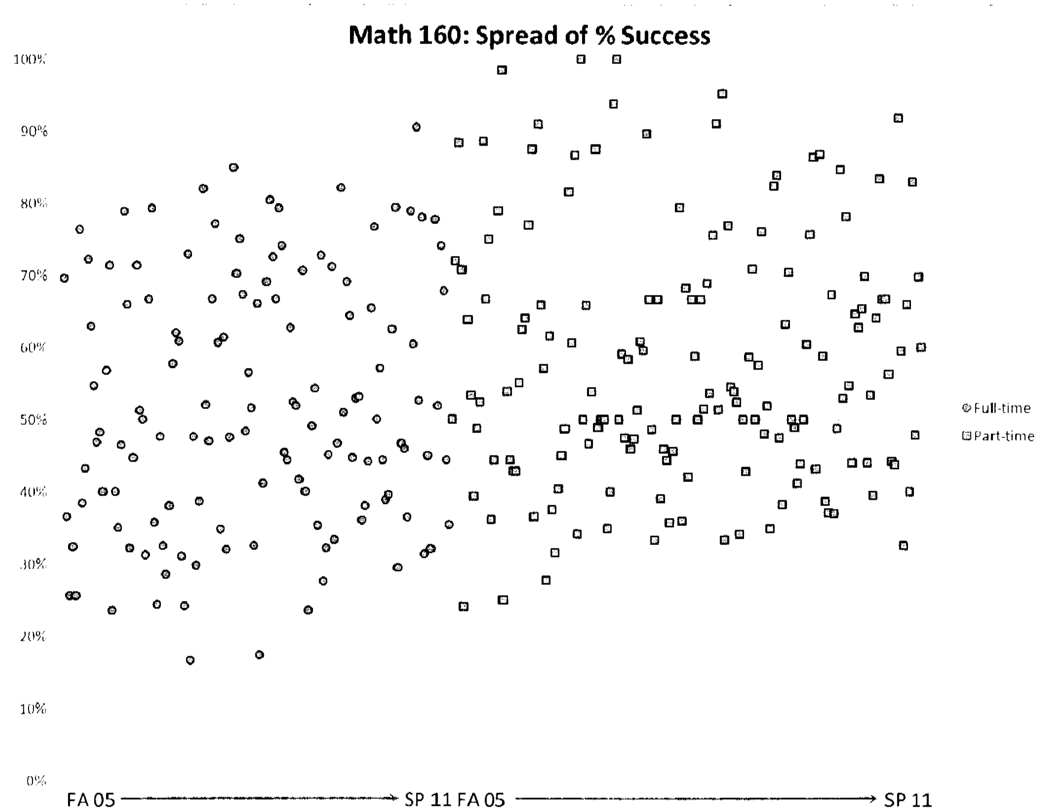
An analysis of grading variance shows a wide range of success rates, with full time faculty slight less variable. The average success rate of full time faculty over the six year period was 44.9% and the part time faculty had 44.1%. It is difficult from our graph to see the overall success rates improving due to the variability and spread of the data points. Clusters in the middle however, do seem to show an upward trend.



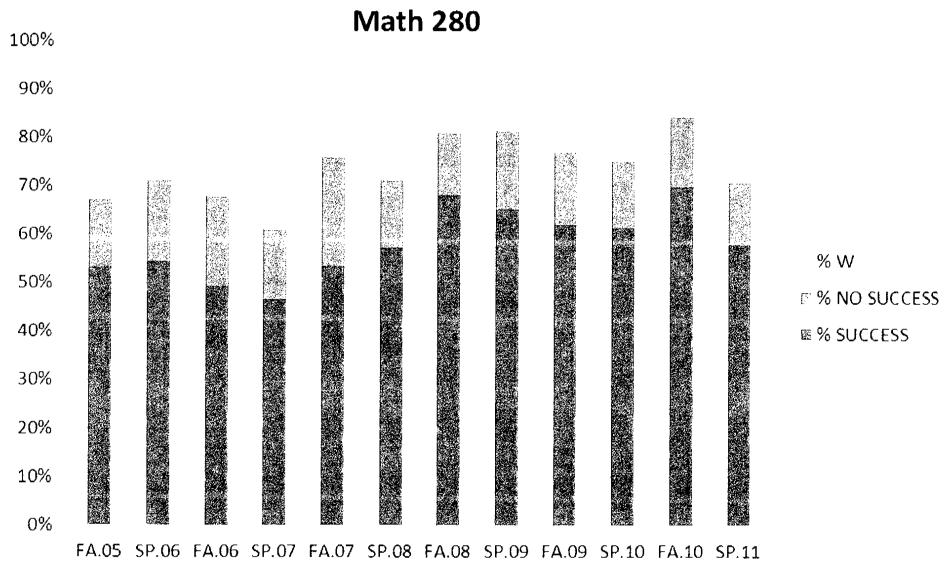
In Math 160, the overall retention has increased from roughly 74% up to 78%. Success has varied somewhat up and down from year to year but overall has not shown much of a change staying near 57%.



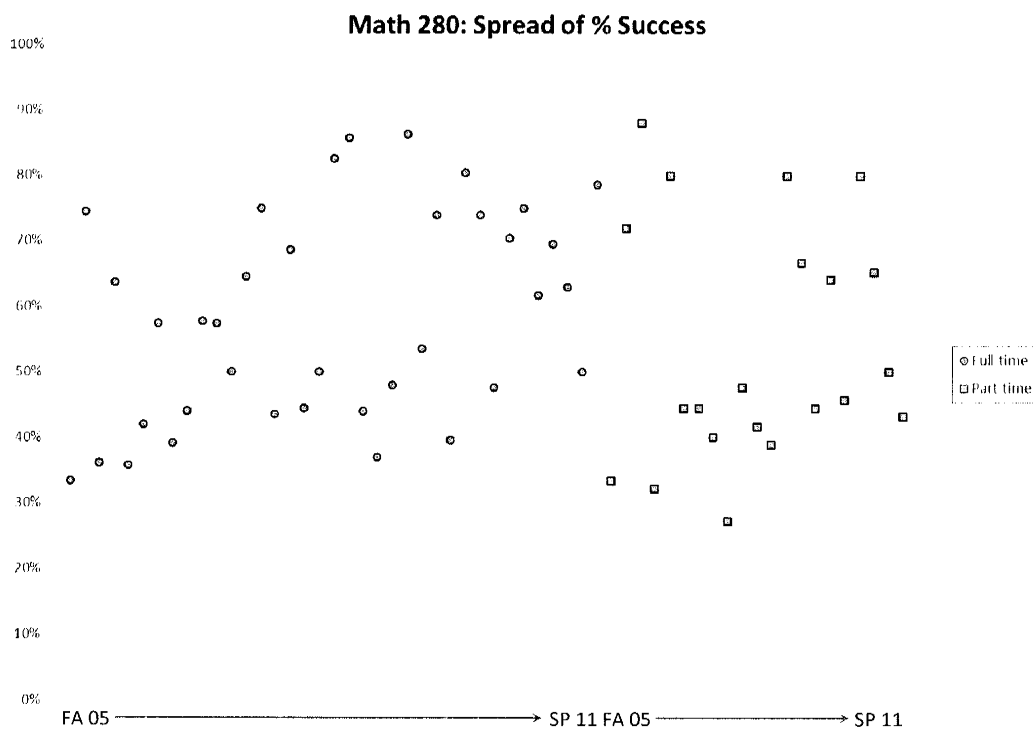
An analysis of grading variance in Math 160 shows a wide range of success rates, with full timers slight less successful overall. The average success rate of full time faculty over the six year period was 52% and the part time faculty had 57.9%.



In Math 280, the overall retention seems to vary semester to semester showing a small average increase from roughly 70% up to 77%. Success has varied somewhat up and down but shows an overall increase from roughly 50% to 60%.



An analysis of grading variance in Math 280 shows a somewhat bimodal distribution for both part time faculty and full time faculty. Also, there is a wide range of success rates. The average success rate of full time faculty over the six year period was 58.3% and the part time faculty had 53.8%.



One clear piece of evidence that the percent success graphs illustrate from Math 90 through Math 280 is that there is a large range of success levels in math classes. Even if we disregard the extreme outliers, the general range of success in Math 90 or Math 110 was between 20% and 70% and in math 160 or Math 280 the general range of success was between 30% and 80%. While some variability should exist due to the range in the ability and work ethic of students attending community college, as well as many other factors our students bring to the table, it seems clear from the data that our instructors also have a wide range of expectations with regard to what they define as success in these courses. Furthermore, roughly 40 out of 280 classes of math 90 over this six year period had success rates lower than 30%. In math 110, roughly 50 out of 220 classes had success rates lower than 30%. If we assume that a section starts with roughly 40 students, less than 12 students in these sections are successful, leaving at least 28 students to withdraw or fail. We must ask ourselves if this success rate is acceptable. Similar results also occur at the other end of the spectrum where some instructors clearly have inflated success rates.

2.5 Describe strategies employed to ensure consistency in grading in multiple section courses and across semesters (e.g., mastery level assessment, writing rubrics, and departmental determination of core areas which must be taught).

The department is striving to ensure consistency in grading in multiple section courses and across semesters in several ways, although as shown above we still have a long way to go. Presently, the department attempts to ensure consistency via course coordination and biannual Student Learning Outcome (SLO) assessments.

Course coordinators provide to other instructors general support and guidance, sample exams, syllabi, ancillary materials, timelines, and core topics to be covered. By providing syllabi and sample exams, instructors have a framework for planning the timing of assessments, as well as guides for designing their own assessments. Course coordinators make strong recommendations regarding length, format, mode of delivery, and frequency of assessment. Exams are used to measure the competency levels of students. If a course is four units, the department expects each instructor to give four unit level exams and one comprehensive final examination. Some coordinators also periodically collect exams from instructors in an effort to ensure consistency across sections. During flex week and throughout the semester, both adjunct and fulltime instructors are provided the opportunity for ongoing conversations about the relative importance of topics, fair assessments of topics, and reasonable grading of those assessments. These conversations should, and do, include the importance of course-specific exit skills and topic-level competencies needed to be successful in subsequent courses.

Ensuring consistency in grading in multiple section courses and across semesters is also accomplished via the department's ongoing Student Learning Outcome (SLO) assessments. During flex week each semester, full-time and adjunct instructors convene with course coordinators to develop the SLO assessment questions to be included on all final exams given at the end of the semester. Through collective input in designing the questions, instructors take ownership of the question and the intent behind SLO assessments. It is mandatory that every instructor include the question(s) on the course final exam, and it is mandatory that all instructors grade the questions according to the rubric described in 3.1. Course coordinators distribute the question and grading rubric, along with explicit grading and data reporting instructions to all instructors. At semester's end, all instructors grade the questions and report the results to the course coordinator. At the department meeting during the subsequent semester's flex week, all results are reported for all courses to the entire department. This provides further opportunity for collaborative discussions regarding consistency across sections and semesters, as well as areas needing improvement moving forward.

2.6 Describe and give rationale for any new courses or programs you are developing or have developed since the last program review.

Since last program review the math department has had two course additions. The first chronologically was Math 177-Inroduction to Teaching Secondary Mathematics. In an effort to identify and recruit more potential secondary math instructors in to their CalTeach program UCSD approached all community colleges in the district for help. Grossmont was the first to take on the challenge. With Bill Bradley spearheading the efforts, Steve Davis volunteered to be the faculty rep. Working with both the Education and Math instructors from UCSD and later with SDSU, Steve developed a course that articulated to two courses at UCSD(EDS 39 and Math 95) and one at SDSU (TE211?). The Math 177 course was designed to help potential instructors develop core-content mastery while also instructing students about the educational side of teaching. It also introduced contemporary issues surrounding current instruction such as web-based learning, charter school emergence, active participation concepts(collaborative group work, inquiry based learning) and multiculturalism in the classroom(Jaime Escalante, The Lottery, Bridging the Racial Gap etc.). The students were also required to observe master teachers in the local GUHSD for 3 hours per week. They were then expected to write reflective essays about what they observed both at the high schools and at Grossmont in terms of how students learn and how teachers teach. While there was no shortage of enthusiasm from students or interesting topics to discuss the course has had particular troubles in recruitment. We have tried going to individual math classrooms by both Steve and his students along with support from other math faculty. We worked with counseling. Everyone has been supportive but still only a few students would register even though earning an "A" was far easier than most math courses and the time requirement was not severe. We placed an advertisement in the class schedule and had flyers printed up. This has been a big letdown. We started with 11 students then went up to 16 but after that it has hovered around 7-8 students per semester. What seems to be apparent is that most students who take math don't seem to want to teach it. We were hoping this class might help with that concern but instead it has been a disappointment in terms of headcount. In Spring 2012, Steve announced he was no longer interested in leading the course. No other full-time instructor was willing to step up. At this time, Jim Minor, an adjunct instructor with 26 years of GUHSD math teaching experience has taken over and will do his best along with Steve's help to recruit more students. On the positive side, several students from Math 177 are employed teaching Math at county schools. Marlesha Keys assists down at High Tech High in Chula Vista while finishing up her credential work. Rachel Neumann was able to boost her secondary credential enough with this course so that she can now teach mathematics at La Mesa Middle School. Mallory Carr first found employment at West Hills High School after receiving rave reviews as one of our CalTeach tutors. She taught math to three visually and auditorally impaired students. She has since been recruited to teach in the North County Selpa program up in Vista which assigns her to various schools in the district to work with visually impaired students (for more hours and higher pay rate to boot!)

Raymond Funk started a problem solving course in Fall 2009. Ray has kept this as a Math 299 course for two years and then decided to just form the Math Club instead of a having formal course. Raymond and Arturo Millan co-advise the club which meets each Friday of the fall and spring semester where they work on problem solving techniques in order to prepare for the Student Math League in which Grossmont

College students compete against students from other two year colleges. Our students have performed fairly well, some years scoring within the top 25% of two year colleges across the country.

The math department has developed some other concepts as well in order to bolster student success in our developmental math courses. Jeff Waller and Corey Manchester have run linked courses which will be discussed in another section so I will spare you the details here. Last summer we introduced the concept of the Math Academy and a Modular Math 88 course. We will need to gather more data before we can decide for ourselves on the effectiveness of Modular learning but nevertheless modular Math 88 is an interesting concept and one worth pursuing in the future (and not just for Basic Skills courses either) The Khan Academy has reported out much success with Modular Learning and while time will tell, there does seem to be early support to continue with these ideas. Another positive from Modular Math was we were able to use money from textbook companies to fund courses when we use their technology. The Math department believes this is a win-win situation particularly in light of the budget crisis we are in and while we are still in the experimental stage. Lastly, the Khan Academy has demonstrated the effectiveness in their research that it is best to direct our teaching efforts to concepts (modules) that students don't know and stay away from re-teaching them modules they already know. This is difficult in a traditional classroom setting but fairly simple in a classroom equipped with a computer for each student.. The students assess for each module of learning and when they demonstrate competence they move on at their own pace. The instructor can quickly discern how many people are struggling with each module and can intervene with a brief lecture if necessary. The current websites also have ample and effective tutorials that students can learn from on their own time. This works well in our Basic Skills courses because most of our students are familiar with most of the modules to be discussed. What will be interesting to see is if this concept can be used at least in part with our higher level courses and if we can develop at least in part, a "flipped classroom" approach where students would do computer work outside of class and work on problem solving in the classroom. These ideas are in their infancy but we believe they are all worth continuing implementation and research.

2.7 How are current issues (i.e. environmental, societal, ethical, political, technological) reflected in your curriculum?

Our faculty takes pride in focusing on mathematical modeling in our courses. Students are expected to solve problems from economics, business, biology, population growth and many other applications using mathematical models aligned with their skill level. In calculus for instance, students learn to optimize business conditions to maximize profits or to minimize costs. In differential equations, students learn to model population dynamics or harmonic motion using the differential equations we study in class. Even in beginning algebra, students learn to model a linear function in a laboratory activity involving bungee jumps of action figures or Barbie dolls. In statistics, most of our instructors use results of recent studies or surveys to add authenticity to the subject matter.

2.8 If applicable, provide a comparison of the retention and success rates of distance learning sections (including hybrid) and face-to-face sections. Is there anything in the data that would prompt your department to make changes? (Please see instructions for help on finding the applicable data.)

The Value of Distance learning

Distance Learning is a valuable venue that allows the Mathematics Department to reach out to individuals in our community who would otherwise be unable to reach their educational goals. These individuals are homebound, working adults, deployed service men and women, non-traditional students who find the face-to-face classroom environment uncomfortable and students who put their studies aside to deal with health issues, pregnancy or other life challenges. By offering Distance Learning opportunities, the Mathematics Department is prepared to help all members of the community reach their educational goals.

Distance Learning also serves a growing number of young adults who have grown up in the age of the Internet. This has shaped the way in which they obtain their information, network and form communities; thus making the online environment part of their everyday life. For this group, Distance Learning is more of a choice than a necessity; it is the convenience and the reality that they have grown up with. With online course offerings, the Mathematics Department can begin to meet the needs of this generation of students.

The Mathematics Department is committed to the highest standards when it comes to the quality of Distance Learning. Because of this, we have implemented many changes during the past six years in an effort to improve online retention and success rates. Among the most recent change is the implementation of synchronous distance learning.

Synchronous Distance Learning

In the **Spring of 2011** the online Math 160 course was changed from asynchronous to a synchronous online course (while the change for the Hybrid Math 110 occurred during **Fall 2010**) With synchronous learning, students interact in live online lectures using e-conferencing technology provided by CCCConfer and powered by Elluminate. During the live lecture, communication between students occurs via the chat feature which is incorporated within the virtual classroom. Communication with the instructor occurs via the chat feature or by using VoIP (Voice over Internet Protocol). Students raise their hand by sounding an alarm then proceed to type their question in the chat area or use VoIP so that everyone can hear the question.

The instructor's main mode of communication during the lecture is done using VoIP and/or the WebCam. When appropriate, the instructor can then choose to use the chat area to communicate with the entire class or with individual students. The virtual classroom offers numerous tools that help make online synchronous learning possible. Among them are whiteboard screens with markup tools, application sharing, web camera, screen capture, web tours, file transfer, closed captioning, and the ability to archive each lecture.

The synchronous virtual classroom offers opportunities that are not available with FTF (Face-to-Face) classes. The ability to archive lectures provides students the opportunity to watch the lecture again with the added benefit of controls that pause, stop, rewind or fast forward the lecture. The ability to communicate with fellow classmates (via chat) without disturbing the lecture allows students to work collaboratively and learn from each other.

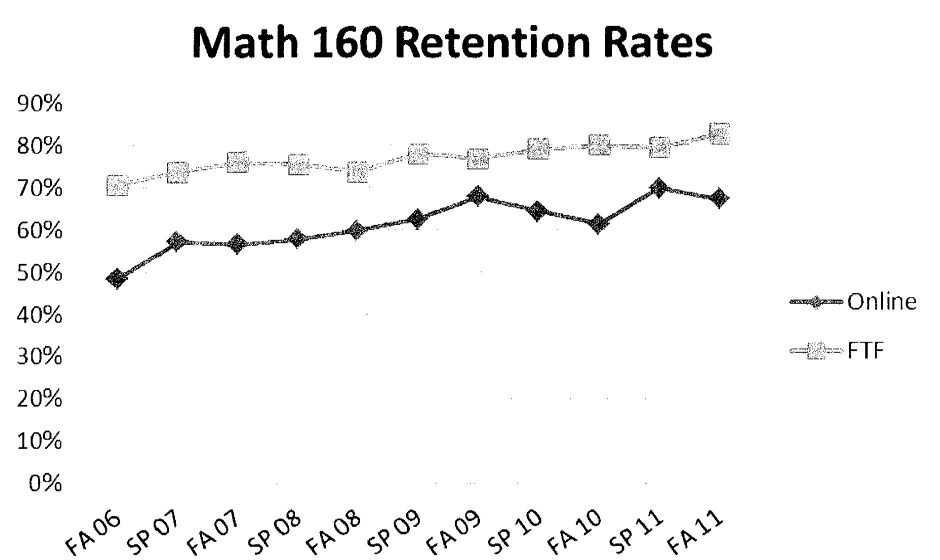
Currently, the times in which the live lectures are delivered have not been posted in the class schedule. Students do not learn about the meeting times until their orientation; which is their first day of class. Unfortunately, by this time their schedule is already full and for many, the meeting times conflict with other courses. Since the lectures are archived, these students then view the recorded lecture at their convenience. Deadlines for viewing lectures are enforced and students are penalized for not viewing each lecture.

How Can We Improve?

With the technology in place, we can now pursue the option of advertising the live online lecture times onto the class schedule. Students can then schedule their online lecture time so it doesn't conflict with other responsibilities. All students will then be expected to attend the live lecture and experience synchronous online learning; giving them the same opportunities to learn that FTF students have. Of course, online lectures will continue to be archived for students who are still unable to attend the live lecture. The idea is that the majority of students will be able to take advantage of the benefits the synchronous learning environment offers.

Retention Rates

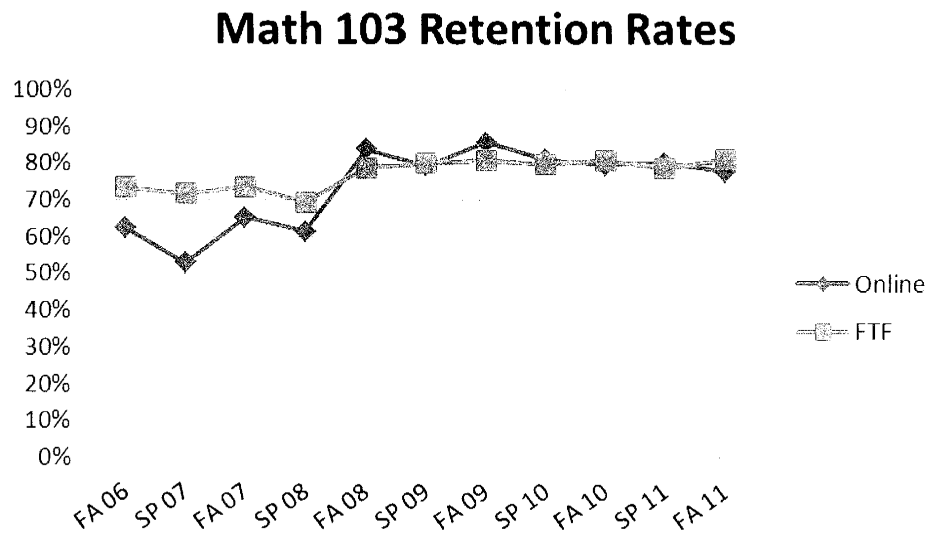
Retention rates for Online Math 160 have steadily increased from Fall 2006 to Fall 2011. In fact, the retention rate remained above 60% for seven consecutive semesters beginning in Fall 2008. Although the FTF (Face-to-Face) retention rates were higher than the online retention rates, the online retention rates improved by 19% while the FTF retention rates improved by only 12% .



Synchronous online lectures began in Spring 2011

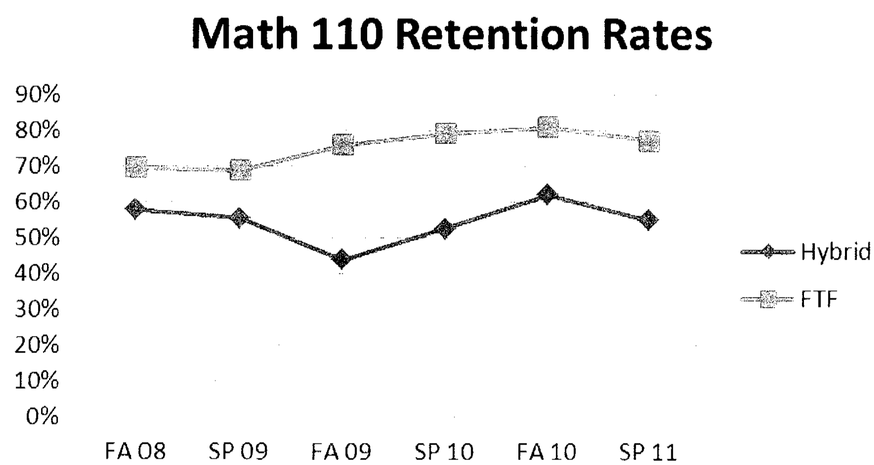
Virtual Office Hours implemented during Spring 2007

Online Math 103 has seen a 15.5% increase in retention rates. After Fall 2008, the online retention rate matched the FTF retention rate.



MyMathLab - A new course Management Learning System was implemented in Fall 2008

Retention rates for the Hybrid Math 110 class were lower than the FTF Math 110 classes. Although there was a brief period of growth, after the implementation of ALEKS a decline in retention rates was seen for Spring 2011.

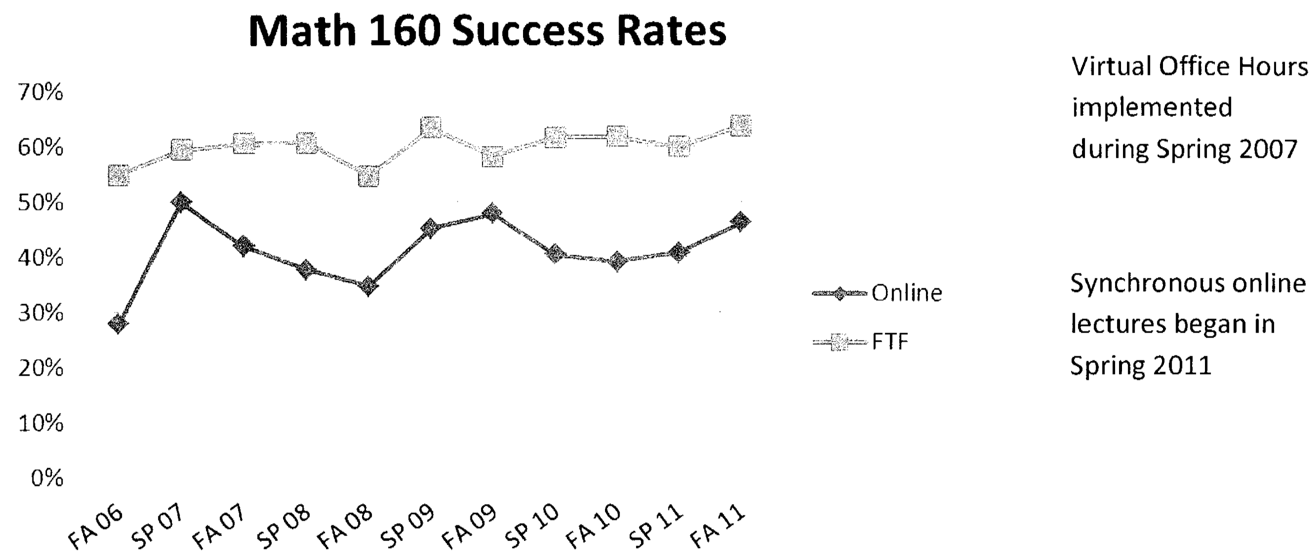


Synchronous online lectures were integrated in Fall 2010

ALEKS – A new Course Management System was implemented in Spring 2011

Success Rates

Success rates for the Online Math 160 classes reached 50% in Spring 2007 but never matched FTF Math 160 success rates. Online success rates remained at or above 40% for six consecutive semesters beginning with Spring 2009.

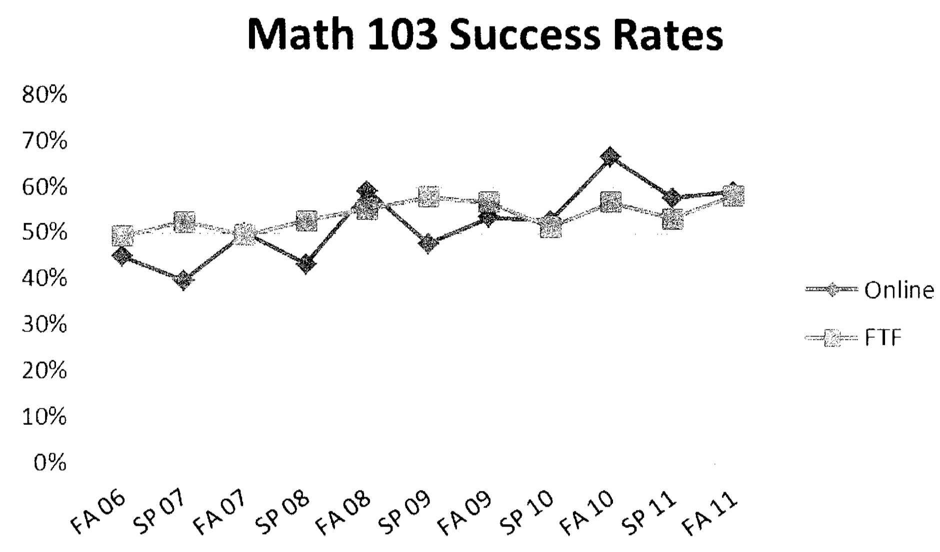


During Spring 2011, online Math 160 students were encouraged but not required to attend the live online lectures. The online lectures were presented as a tool to help students learn the material. Unfortunately, the majority of students did not take advantage of this opportunity.

In Fall 2011, a different strategy was pursued. This time online Math 160 students were penalized for not attending the live lectures. Every missed lecture resulted in a 5 point deduction from their overall grade. That semester, online success rates saw an increase of 5.5%.

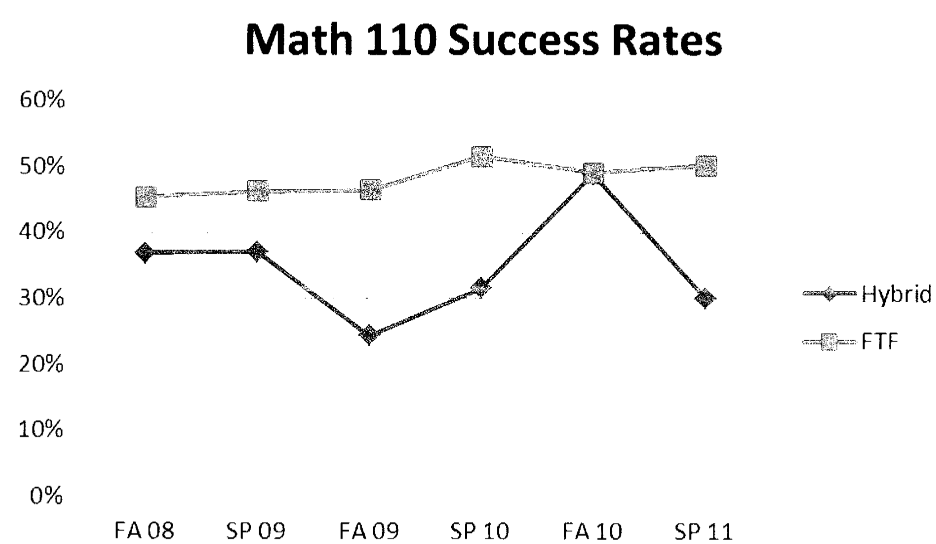
After all this, one problem still remains, the majority of students have to watch the archived lecture because their work or class schedule conflicts with the times the live online lecture is offered. Because of this, we are pursuing the option of putting the live online lecture on the class schedule so that students can choose classes that will not conflict with the online lectures. With this scenario, the Online Math 160 class would have meeting times printed on the class schedule and students would not be able to choose another class with the same meeting time. In theory, all students should be able to attend the live online lectures. We expect to bridge the gap between online and FTF success rates. We believe that this can be done by offering our online students the same opportunities to learn that our FTF students have.

The Math 103 success rates were consistently lower during the spring semesters. During Fall 2008, online success rates surpassed FTF success rates and have subsequently matched or surpased FTF success rates since Spring 2010. The synchronous learning approach has not been implemented in the online Math 103 class. This particular class is thriving as an asynchronous online class with the option of getting help from the instructor via virtual office hours through the use of CCCConfer .



MyMathLab - A new course Management Learning System was implemented in Fall 2008

The most notable change in success rates occurred during Fall 2010 when hybrid success rates matched FTF success rates. This was an increase of 18% from the previous semester. It was during the Fall 2010 semester that the synchronous online approach was integrated into the Hybrid Math 110 class.



Synchronous online lectures were integrated in Fall 2010

ALEKS – A new Course Management System was implemented in Spring 2011

In an effort to continue improving hybrid success rates, a new assessment and learning system (known as ALEKS) was adopted during Spring 2011. This online system was designed to help strengthen fundamental problem solving skills so that students could succeed in their current course. By assessing students at the beginning of the course, the system created a study plan that was individualized for each student. This system required that students put in many hours mastering concepts before they could actually work on problems from the current lecture. Since students were not willing to put in the time in mastering remedial concepts, they were always behind. Instead of working problems from the current lecture, they were working problems from previous chapters.

This system, which may have worked well in a self-paced class, proved to be unsuccessful in the lecture based class. With the implementation of ALEKS, there was a sharp drop in hybrid success rates during Spring 2011. Due to budget cuts, this course was not offered after Spring 2011.

Summary

The use of synchronous learning has the potential to increase retention and success rates. With this technology in place, we can now concentrate on pursuing more effective ways of implementing it. We will begin by printing meeting times on the class schedule to assure that students give online courses the same priority as FTF courses when choosing their course load.

We will continue to monitor student success rates in our online courses and work collaboratively with the Distance Education Sub-Committee and the Technology for Teaching and Learning Committee (TTLC) in search of "best practices" that will improve the quality of our online courses and increase student success.

We will continue to assess and improve our current practices;

1) Require students to complete an orientation that explains the structure and expectations of an online class.
2) Within the first two weeks, require students to complete many assignments, assuring that they can navigate through the complexities of the course.
3) Give weekly assignments and quizzes to assess student learning.
4) Use Synchronous learning when appropriate; attend live online lectures and office hours. Here communication is happening in real time replicating the interaction that occurs in a face-to-face class.
5) Offer a platform where students have direct contact to the instructor and fellow classmates (incorporate discussion boards)
6) Design assignments with tutorials that help students progress step-by-step through the material.

The Mathematics Department understands the import role that Distance Learning plays in helping all members of the community fulfill their educational goals. In response to this, we will continue to explore innovative practices that will further encourage and motivate students to succeed in our online classes.

2.9 If applicable, include the list of courses that have been formally articulated with the high schools. Describe any articulation and/or collaboration efforts with K-12 schools. (Contact the Career and Technical Education Partnership and Tech Prep office for help.)

Math 110 is the only math course formally articulated with the high schools. High school students who complete Algebra I & II and Geometry, with a B or better in Algebra II, receive credit for Math 110 on their Grossmont College transcripts.

The mathematics department collaborates with the Grossmont Union High School District by having a representative of our department sit in the high school district's Mathematics Council and through the Cal-Pass data sharing program. Currently, we are considering a new method of assessment for incoming high school students from the area which focuses on dialogue with high school counseling and transcripts from one of the high schools in the Grossmont Union High School District to place the student in their entry level math course here at Grossmont College, this is explained in greater detail in section 5.7 of this document.

The mathematics department also collaborates with San Diego State University to prepare future elementary school teachers by aligning and coordinating our teacher preparation courses; Math 125, Math 126 and Math 128.

2.10 Consult with the articulation officer and review both ASSIST.org and the Grossmont College articulation website. Please identify if there are any areas of concern or additional needs your department has about articulation with four-year institutions. Please describe how the program ensures that articulations with key four-year universities are current.

The Math Department does not have any areas of concern or additional needs about articulation with four-year institutions. The following information describing the Mathematics Department's articulations with key four-year universities is courtesy of our articulation officer Janice Johnson:

The Grossmont College Mathematics Department has well-articulated courses with all UC, CSU and Private/Independent Colleges in our service area and several other institutions throughout the state. All formal CSU and UC articulation can be found at *ASSIST.org* which is the data base available to current or potential college students. Articulated courses and agreements, including independent and private universities, can quickly be accessed via the Grossmont College Articulation Web Site as well: www.grossmont.edu/articulation.

With the exception of developmental and MATH 103/110 all mathematics courses are transferable to the entire CSU and UC System and many are included for CSU GE and IGETC. In addition, there are many instances whereby MATH courses have been evaluated by transfer universities and found to be equivalent. These courses are granted formal articulation. Students, who are preparing for majors in mathematics and other related majors (particularly engineering) along with majors that require specific courses in mathematics, are able to complete the required course work at Grossmont College. In addition, the Grossmont College Mathematics Department offers the courses necessary to develop the AS, Mathematics for Transfer (AS-T) legislated by SB1440.

The Mathematics Department maintains a close and collaborative working relationship with the GC Articulation Officer thus assuring that articulations with transfer universities are current.

SECTION 3 - OUTCOME ASSESSMENT

3.1 What is working well in your current SLO assessment process, and how do you know? What needs improvement and why?

The math department was one of the first departments on campus to implement and assess student learning outcomes. We began the process in Fall 2006. Most began in 2008.

The math department has "tweaked" their system of assessments as the years have gone on. At this point, this is the process that is followed:

The course coordinator for each course meets with fellow faculty members during flex week to create the SLO for the upcoming semester. Each instructor in that course will put that exact problem(s) on their final exam. The course coordinator is responsible for getting all sections to participate. Each section instructor will grade the question using the following pass/no pass rubric:

No Pass: Although some work may be shown, the student has too many flaws in their solution to earn a passing grade on the problem.

Pass: Student shows a good solution with few or no errors. Work is of good enough quality to earn a passing grade on the problem.

Each instructor is given a tally sheet which is turned in some time after finals week with their results to the course coordinator.
The course coordinator takes all the information and compiles it and presents the results during the flex week of the next semester at the math department meeting. This meeting is the one time of the year when almost all the math faculty come together (approximately 60 instructors). Every course that assessed an SLO presents during the meeting and mass discussions occur in the process. Instructors will meet one more time during flex week (during the allotted 2 hour SLO meeting) to "close the loop". At that meeting, instructors get in smaller groups by course to continue with more discussion on the assessment and student work and then also come up with the next assessment question for the upcoming semester – either moving on or re-assessing or both.

This process has been working well for our department. During the large math department meeting in flex week, all instructors (whether teaching the course or not) will get to see what is being assessed in each course and the student results. This leads to creative and helpful discussions on the content being taught, the level at which it is being taught, and "best teaching" practices. It allows all instructors to see the level where students have come and where they are going course by course. It allows us as a group to see the bigger picture – mainly problems that are across the board in all sections by almost all students on certain topics. Those topics are then focused on and reviewed and "diagnosed" as to better ways to conquer the material for the student.
The smaller group meeting during the actual SLO meeting is also beneficial. These groups will mainly consist of the actual instructors teaching the particular course. Instructors gain valuable information on a

different level here. The instructors talk about what works and what does not work in everyone's classroom. Activities and worksheets are shared along with common complaints and success stories of the class!

This "cycle" of work is currently working for the math department. We have desperately tried to streamline the process to get all instructors more engaged in the process. Although some still feel like this is busy work, we are all trying to get something out of it and I think we are succeeding.

One problem we face each semester is getting **every** course coordinator to actually complete the assessment and have the results compiled and ready to go at the department meeting. There is no real benefit if it cannot be shown to all instructors and discussed.

The department still needs to work on more participation from adjunct faculty on this. They teach over 50% of our classes and the math department needs their feedback and information on their students. The majority of mathematics faculty members attend the department meeting during flex week, yet we have a much smaller turnout for the SLO meeting the following day. This is a more focused meeting on each course and we would like more instructors to participate.

We also need to work on keeping our data more organized. We use the S drive on our computers at work to keep the information, but I think to look at a more long-term view of these outcomes and assessments would be helpful – looking at the bigger picture. This could help with any trends that could be occurring in the courses. For example, do students from beginning algebra to calculus all have weak spots? This is hard to see when we store our data by class and then never look back and data from two or three years ago. It would take a lot of work on an individual's part to start organizing this. Perhaps with some release time, someone would step up within the department. I think it is great we have an SLO coordinator on this campus for all the departments to consult, but I think each individual department needs their own SLO coordinator (with release time) in order to keep all the information relevant to the department.

3.2 Using your course-level SLO Assessment Analyses (Appendix 5), this is part of your annual reporting process, and your Course-to-Program SLO Mapping Document (Appendix 6), discuss your students' success at meeting your Program SLOs.

We have seen moderate student success on our department's student learning outcomes across the board. About half of our outcomes pass on the first assessment while the others require at least one reassessment. We are still learning how to properly place the Student Learning Assessment questions on our final exams to get the best responses from our students. Concerns have been raised regarding various issues such as where problems are placed on the final exam to the number of questions asked on the final exam, all which may affect the students' performance. Also, we are still having conversations about the appropriate of "level of difficulty" of questions that have been asked. This issue would seem to correlate well with the wide range of success levels in our sections as discussed in section 2.4 of this document. It would seem that if our teachers have a huge variance in what they deem success in a course, that coming to consensus on the level of difficulty and the type of exam questions given for the student learning outcomes would be challenging. When we analyze the results during flex week however, most sections within the same course number, say Math 90 or Math 100 or Math 180, seem to perform similarly on the student learning outcome questions. Certain courses such as math 120 and Math 160 do seem to show more variance in the results from section to section.

3.3 Based on your discussion in Section 3.2, are there any program SLOs that are not adequately being assessed by your course-level SLOs? If so, please indicate by clearly designated modifications to your Course-to-Program SLO Mapping document in Appendix 6. Please discuss any planned modifications (i.e. curricular or other) to the program itself as a result of these various assessment analyses.

Our course level SLO are easily related or well connected with our program (departmental) SLO's and are being assessed regularly as shown in our six year plan. In general, we have attempted to make the Student Learning Outcome process as relevant as possible for ourselves. Although specific modifications would be hard to state at this time, we can give some general observations and goals for our department. With regard to student success, we have had more discussions than in the past about what constitutes success in a course and what content and skills best exemplify outcomes of a particular course. Hopefully, we shall create even more staff development time to have significant conversations about the courses we teach and about the type of learning outcomes we expect from students who earn passing grades in our courses. We would hope that the range of overall success in our courses would narrow as instructors align more closely on student learning outcomes. Also, as mentioned in section 3.1, we need to improve the data collection so that we can get more relevant information on success rates over the long run. Similarly it would be helpful to have a well-organized collection of the types of questions asked to assess a particular Student Learning Outcome for comparison and analysis in future years.

SECTION 4 - STUDENT ACCESS

4.1 How does facility availability affect access to your program?

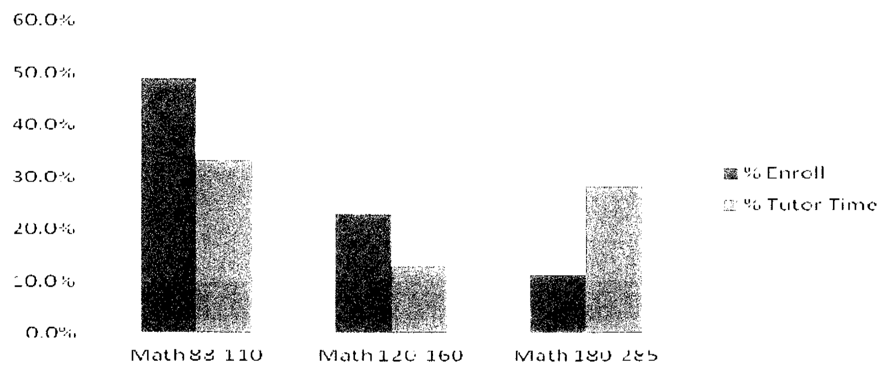
One of the greatest challenges for access to our program may be the availability of classrooms to teach in during the periods of high demand on campus, roughly 9:00 a.m. – 3:00 p.m. Monday through Thursday. Finding rooms that are adequate for teaching mathematics during these peak time periods is even more difficult. Even the rooms we currently use affect both the access and success of our program. Some of our traditional mathematics rooms (357, 358 and 359) were perfect when we had 35 students in a class. Now these same rooms feel cramped when they are filled with 50 students, many of whom have poor viewing angles of white boards or projection screens. Rooms 552, 553 and 554 which were originally designed for other types of instruction are even worse to teach mathematics in. They are very wide which means that students sitting on the edges of full classes have a very poor viewing angle during lectures. Most of our rooms are so full of desks and tables that some students may have difficulty exciting them in an emergency. The Math Study Center facility is too small and its size affects both the access to our program and the success of our program. Currently it does a good job of serving transfer level students.

Math Study Center Data Spring 2012

	Enrollment	Tutor Time	% Enrollment	% Tutor Time
Math 88,90, 97	1283	1717	23.1%	13.4%
Math 103	714	1093	12.9%	8.5%
Math 110	709	1445	12.8%	11.3%
Math 120	406	193	7.3%	1.5%
Math 125	40	9	0.7%	0.1%
Math 126	32	1	0.6%	0.0%
Math 128	33	0	0.6%	0.0%
Math 160	865	1468	15.6%	11.5%
Math 170	130	460	2.3%	3.6%
Math 175	257	1388	4.6%	10.8%
Math 176	178	442	3.2%	3.5%
Math 177	7	85	0.1%	0.7%
Math 178	265	894	4.8%	7.0%
Math 180	231	2044	4.2%	16.0%
Math 245	27	9	0.5%	0.1%
Math 280	188	594	3.4%	4.6%
Math 281	94	695	1.7%	5.4%
Math 284	41	80	0.7%	0.6%
Math 285	43	192	0.8%	1.5%
Totals	5543	12809	100.0%	100.0%

Math Study Center data from spring semester in 2011 showed students from Math 180 – Math 285 make up roughly 11% of all math students on campus and yet they use roughly 28% of the math study center tutoring hours. Math 88 – Math 110 students make up roughly 48% of all math students and yet only use 33% of the math study center tutoring hours. Math 120 and Math 160 represent roughly 22% of all math students and yet only use 13% of the math study center tutoring hours.

Math Study Center Data Spring 2012



Recently the math department has tried harder to cater to the developmental mathematics students, who make up 30% of Grossmont College math students, by putting them in a different room with tutors more suited to their special needs. However, the only available space is a computer lab, which seems unsuitable for several reasons. Students may feel intimidated by the computer lab or turned off by the somewhat "clinical" feel of the room. The room also lacks table space to lay out their textbook and papers and to work at. Also, the room must be used as a computer lab for much of the day which makes it only available for tutoring part of the day.

A similar argument can be made for the math 120 and math 160 students who have rather special needs and are roughly 25% of all of the Grossmont College math students. We would argue that these students should also have a separate area staffed with specialized tutors trained to answer the types of questions these students bring. Most of our tutors are engineering, physics or math majors, many of whom may never have taken a course like math 120 or math 160. Therefore, even though the Math Study Center tutor may be well qualified to tutor students in college algebra, trigonometry and calculus, they may not be very good at dealing with the various problem-solving strategies used in Math 120 or the statistical theory needed to adequately tutor our Math 160 students.

Some may say that we need more or better trained tutors and that would suffice, but having a separate area for these special populations will provide more focused attention, the growth of student study groups and mainly the feeling of being in the right place to get help. We have all heard of the experiences of our students who try the Math Study Center and are frustrated when they cannot get good help with their homework questions. Often these students do not return for more help. However, if students have a good tutoring experience, they will generally return throughout the semester for more help. Our facility is one issue that affects our ability to adequately serve students who need mathematics tutoring.

4.2 Discuss what your program has done to address any availability concerns (i.e. alternative delivery methods, alternative scheduling sessions, off-site offerings).

Our program has always been very proactive in finding alternative ways to deliver instruction in order to improve student success and retention. We continue to be innovative and creative in our class offerings, such as offering online and self-paced classes, short-term classes, and programs that enable our students to finish their developmental math courses in a shorter amount of time.

I. Online Classes

The Mathematics Department at Grossmont stays current with the changing technology and incorporates the advances into enhancing the instruction in mathematics. We started offering Math 160, Statistics, online since the fall of 2004 and in the fall of 2007, started offering a Math 103, Intermediate Algebra online section. We now offer two sections of Math 160 and two sections of Math 103 every semester as a response to the growing demand for online courses. The online classes allow the college to offer classes to a wider population especially those students who may be disabled, work full-time, have families to take care of, or who may have some problem getting to campus. The students are required to attend a mandatory orientation either online or on campus and take an on-campus midterm and final. The instructor holds office hours, maintains a discussion board, and review sessions for students needing the one on one instruction with material. Online classes allow the students to work through the sections at a pace that they are more comfortable with since they can control the speed of recorded lectures by pausing, rewinding, and fast forwarding them whenever they want to. Of course students still have to adhere to the course schedule and must complete the required assignments every week. The use of discussion boards in the online system allow students who would not normally participate in a face-to-face course to ask more question and help their fellow classmates.

II. Self-Paced Lab Courses

The mathematics department continued to offer the self-paced, computer assisted lab courses Math 88L, 90L and 110L until the Spring semester of 2010 when these classes were cut due to budget issues. The one-unit lab classes served as a review for some students and extra practice for others. Students were able to sign up for these classes through open enrollment throughout the semester, and provide a "fall back" unit for some students who prove unsuccessful in their current math classes.

III. Math Academy

Our program, for many years, has been creating interventions for our beginning algebra course, as we realized that this was the stumbling block class for many of our developmental math students. Our overall success rate in this course is approximately 50%. We tried many interventions, including special tutoring sessions, a study skills course co-taught by math faculty and counselor, and a variety of other interventions. At one department meeting a faculty member made a statement about how our students do so much better in the summer, and so we ran data to see if this is truly the case, it was (see section 6.3 for data). So, we started thinking about why would this be and how can we replicate this in the regular semester? In the summer of 2009, we created Math Academy, which was a linked 6-week Pre-Algebra class (Math 88) followed by a 10-week Algebra class (Math 90). It was first offered to students in the Fall of 2009. Math Academy was created to help improve the success and retention rates of our developmental math students and to promote student success for historically under-served, under-represented, and under-prepared populations. Math Academy also allows the student to finish two developmental math courses in one semester which accelerates academic process, getting them into transferable mathematics courses more quickly.

IV. Modular Math 88

Similar to the goals of the Math Academy, we wanted to find another format that will allow our basic skills students to go through the developmental math sequence at a shorter amount of time and still be successful in their transfer level math courses. In the summer of 2011, we offered a pilot modular Math 88 course. Unlike a traditional class, this course took place in a math lab and all of the instruction, tests, and homework were delivered using the MyMathLab software. There were no live lectures but the instructor was in the lab during class times to help answer individual questions. The course was organized by mini-modules and topics. To pass this course, students had to complete 15 mini-modules by the end of the summer session. Students who finished all the required mini-modules for Math 88 had the option to complete 17 additional modules to satisfy the requirements for completing Math 90 (Beginning Algebra). Completing all 32 mini-mods will allow students to skip Math 90 and take Math 103 or Math 110 (Intermediate Algebra courses) as their next math course. Due to the success rate (14/16 passed the course) of this pilot program, we will be offering this modular course again in the fall of 2012 and a Math 90 modular course the following semester.

V. Short-term Courses

Our program also offers short-term courses to enable students to fulfill their math requirements in a shorter amount of time. We currently offer Math 103 during the first 8 weeks of the semester and Math 120 and Math 160 during the 2nd 8 weeks of the semester. Students who pass the Math 103 course can enroll in either one of the two transferable courses – Math 120 or Math 160 depending on their major. This allows them to finish their prerequisites and required transfer courses in one semester. In addition, we also offer a 10-week Math 88 course that begins on week 7 of every semester. This class, open to anyone needing Math 88 was started as a 'fallback" course aimed primarily at struggling Math 90 students. The late start will allow these Math 90 students to drop their Math 90 class and enroll in a Math 88 course to review their pre-algebra skills in the same semester, thereby saving them one semester of developmental math.

4.3 Based on your analysis of the Student Survey results in Appendix 7, what trends did you observe that might affect student access (i.e., course offerings, communication, department and course resources)?

After receiving the student survey from the district department of Research, Planning and Effectiveness, we noticed some rather strange observations. One key outcome was that only 6% of our students claimed to learn the course material from lecture, which is completely different from any previous survey results and our own experience. We began to question other results of the survey as well. Why would students respond so differently? The survey was e-mailed to math students, had fairly general college-wide questions and allowed students to choose whether or not to take it. Did these issues dramatically bias the results? We then decided to complete our own internal department survey with questions more specific to the needs of the mathematics department. The survey was given to a large sample of math courses by instructors. Both of the surveys and their results are in Appendix 7.

Some key outcomes from each survey are listed below:

- Of the students who responded to the Research, Planning and Effectiveness survey, 53% stated they were dissatisfied or very dissatisfied with the availability of courses in the department. In the last program review cycle, 77% of students were satisfied or very satisfied with course offerings.

- One rather surprising response given in both surveys was that roughly 20% of students were considering majoring or getting a degree in mathematics.

- Another interesting outcome that was very different in the two surveys was regarding how students learned the course material. In the Research, Planning and Effectiveness survey, only 6% of our students claimed to learn the course material from lecture. However, our internal survey stated that most students, roughly 92%, learned the course material from attending lectures which correlates to previous program review documents. In both surveys, a large proportion (78% RPE survey and 91% internal math department survey) of students stated that homework helped them learn the material.

4.4 What implications do these findings from 4.3 have for your program?

Many of our mathematics sections currently have efficiency ratings over 100%, so clearly a huge demand exists for more sections (see appendix 11). It would seem that the quantity of courses cut from the schedule due to budget constraints may have seriously affected the availability of course offerings for students.

Since so many students have stated that they are considering a major in mathematics and we still have a small fraction of graduates with a mathematics degree, we should continue to find ways of increasing the number of degrees we award each year.

Since students state that they learn well from attending lectures and completing homework, it would seem that both should be encouraged for students to be successful in their math courses.

4.5 Based on your analysis of questions 3 through 16 in the Appendix 7 - Student Survey, identify any changes or improvements you are planning to make in curriculum or instruction.

Since students have are having difficulty getting the mathematics classes they need, we must add more sections back into our schedule. With regard to increasing the number of mathematics majors at the college, we need to effectively communicate the desirability of having a degree in mathematics. Furthermore, we need to communicate to all pre-engineering or physical science majors how easy it can be to graduate from Grossmont College with an associate's degree in mathematics since they will have to complete the same course work for their advance degrees. Finally, since both surveys clearly state that a large proportion of our students claim to learn the material by completing their homework, we should encourage all our instructors to promote the importance of doing homework to their students.

4.6 Discuss program strategies and/or activities that have been, can be, or will be used to promote/publicize the courses/program. Comment on the effectiveness of these strategies in light of the results of the Student Survey (Appendix 7)

Since most programs on campus require some level of mathematics, in general, we do not have to promote our program. Roughly 92% of students who responded to the survey stated they needed our course for major requirement, for general education requirement, for transfer, for prerequisite or to improve basic skills. However, we do need to promote some programs such as our linked course (Math 90-English 98 Allied Health Link), our Math Academy (Math 88 and Math 90), our Freshman Academy (Math 90 and Math 103), and our Introduction to Teaching Secondary Mathematics. Finally, we need to increase the awareness of our associate's degree to engineering and physical science majors whom already fulfill many of its requirements on their way to getting a bachelors degree. In the last few years we have seen the number of our degrees slowly increase (see Appendix 8) yet we feel we can dramatically increase this number.

4.7 Explain the rationale for offering course sections that are historically under-enrolled. Discuss any strategies that were used to increase enrollment.

Math 177 has had low enrollment but we continue to offer it to encourage students to pursue mathematics teaching as a career. The course is paid for by a grant that attempts to meet the high demand for math and science teachers in the near future.

We ran a special math 90 course for students with learning disabilities for many years. We purposely kept the enrollment low to serve these students better. Recently, we had to stop offering the course because of state budget cuts.

Math 125, Math 126 and Math 128 are courses that train future elementary school teachers. Some sections have had lower enrollments but usually they have at least 20 students. These courses are important to prepare elementary school teachers with conceptual mathematics education that should improve their teaching of primary grade mathematics. These course are aligned with San Diego State University.

4.8 Based on an analysis and a review of your 6-year Unit Plan (Appendix 1), what specific strategies were utilized to address access issues of special populations (e.g. ethnicity, age, and gender).

When the math department wrote our six year plan we did not feel like we had any high priority access issues. When we compare our department level enrollment data to the college wide enrollment data in categories such as ethnicity, gender or age, we find little difference. In fact we almost mirror the college enrollment data. However, as we have discussed throughout this document, we have given special attention to the developmental math students. Our Math Academy focus is their success, but will also increase their access to higher level transferable mathematics courses.

SECTION 5 - STUDENT SUCCESS

5.1 Building on your answer to question 4.8, what specific strategies were utilized to maximize success issues of special populations (e.g. ethnicity, age, and gender).

One special population the mathematics department has really focused on maximizing their success is the developmental math students. After analyzing data from the district Institutional Research Office (explained more in section 6.3), we have tried to help this population in several ways. First, we developed a course known as the Math Academy to shorten the time these students spend in pre-college level mathematics and move them on towards transfer level courses. Second, we have tried to improve the level of tutoring access for developmental math students by trying harder to draw them into the math study center. We have also created a special section within the current Math Study Center which is totally devoted to developmental math students. It is staffed with tutors who are trained to work with this special population. We still have more work to do in this area which is described in greater detail in section 4.1. We continue to increase the role of the Developmental Math Coordinator which required some release time to go with their increased responsibilities. Their recent accomplishments are also documented in section 1.2 and 4.2 of this document. Finally, we have encouraged more full time faculty to teach developmental math courses. We have come to expect that each member of the faculty has a role in teaching all types of math students, including the developmental population.

5.2 Describe specific examples of departmental or individual efforts, including instructional innovations and/or special projects aimed at encouraging students to become actively engaged in the learning process inside and outside of the formal classroom.

Many of our instructors use various types of special math projects to increase our student's interests in what they are learning. In statistics, many instructors have students collect their own data to study relationships between variables of personal interest. In differential equations, students do projects on population growth or harmonic oscillators creating connections to concepts they study in their science courses. Many instructors also do take home exams or quizzes so that students can spend increased time on solving more real life types of problems. Our hope in using these more "real life" projects is that the students can develop a richer understanding of mathematical concepts we study everyday such as slope, rates of change, accumulations of function values over an interval, initial conditions, parameters, etc.

Our Math Club meets most Friday afternoons throughout the school year to study problem solving strategies of George Polya and the examples of great mathematicians such as Euler or Gauss. They practice solving non-routine mathematics problems and focus on the process of how to solve difficult problems. The students also compete in the Student Math League from the American Association of Two-Year Colleges. The students come for their own interest in mathematics and to learn to improve their problem solving abilities.

5.3 Explain how the program collaborates with other campus programs (e.g. interdisciplinary course offerings, learning communities, community events, tournaments, competitions, fairs) to enhance student learning inside and outside of the formal classroom.

The Grossmont Math Department, through the Math Study Center, has opened up its math workshops to all students who might need help with their math, regardless of which course they are taking. The Sciences have been specifically targeted. Working with the Sciences, a specific workshop titled "Math Review for Science Students" was created and added to the workshop line-up. This workshop is meant to assist those students taking introductory level science courses who needed a review of basic mathematics.

In Fall 2008, a learning community was created by Jeff Waller and Tate Hurvitz, linking Math for General Education (Math 120) with College Composition and Reading (English 120). Through all measures, this link was a success. Recently, Corey Manchester developed an Allied Health Learning Community link for Project Success. The linked course provides a contextualized learning environment with a health career pathway emphasis. The learning community consists of Math 90 linked to English 98 and 98R through integrated assignments and curriculum. Corey has presented information on the structure and success of the link at conferences, including the California Learning Communities Consortium. In Fall 2011, a Statistics course participated in the Henrietta Lacks Project by having students analyze data collected from a survey of students.

Every March, the Mathematics Department at Grossmont hosts a segment of the Senior High Mathematics Field Day. The segment, titled "Rapid Transit", consists of 50 math and math-related questions that must be answered within 15 seconds each. Grossmont instructors prepare the power-point of questions and host the segment.

For Grossmont College's 50th Anniversary Open House, the Math Department hosted a mathematics based "Wheel of Fortune" game and the "Math Cab", a golf-cart ride across the campus with a math quiz (an incorrect answer meant the ride was over, prizes were given out for enough correct answers).

5.4 Based on an analysis of "Reports" data (This is found on the intranet under "Reports"), discuss trends in success rates, enrollments and retention, and explain these trends (e.g. campus conditions, department practices). Provide examples of any changes you made to address these trends.

In appendices 3 and 13 of this document we have created a beautiful graphical display comparing the students in the Mathematics Department with students from the general Grossmont College population with regard to success rates, enrollments and retention. In appendix 13, each data point for the Mathematics Department is displayed next to the same data point for the college as a whole. We used the college data as a standard for our comparison.

Analyzing this data, lead us to the following conclusions:

- Math students tend to be younger and slightly more male and slightly more Hispanic than the general population, see pages 2 – 13 of appendix 13.
- Math tends to retain students at same rate as college, but less successful than college, see page 14 of appendix 13.
- Black, Hispanic, Pacific Islander and American Indian/Alaskan Native groups are less successful than others, see pages 27 – 35 of appendix 13.
- Overall success rates for the department increasing each year, page 14 of appendix 13. This is also true in most mathematics courses, specifically developmental math, see appendix 3.1, grade distribution by course.
- Most ethnic groups' success rates have increased but significantly lower than the college, see pages 27 – 35 of appendix 13.
- Females are more successful than males which is also true of the college as a whole, see pages 15 -19 of appendix 13.
- Department withdrawal rates are slightly higher than the college but are approaching the level of the college, see pages 17 – 35 of appendix 13.
- Department retention rates are slightly lower than the college but are approaching the level of the college, see pages 14 – 35 of appendix 13.

Success rates of development math students have seemed to increase as we began to focus on the problem. Awareness and acknowledgment of the problem was very important part of beginning to address the issue. The entire mathematics department has really been committed to looking for solutions. These are well documented throughout this document. We acknowledge that we still have work to do but we expect steady improvements in the future.

The data clearly shows that the mathematics department, as well as the college, needs to focus our attention on lower performing ethnic groups. We plan to use the same problem solving approach to tackle this problem as we have done with so many others. We shall use data to create awareness and acceptance that something needs to be done about the problem. Then we shall address the problem at many levels; classroom, department and college using data to monitor what programs and changes seem to be most effective and efficient.

5.5 If state or federal licensing/registration examinations govern the program, please comment on student success.

N/A

5.6 Referring to Appendix 8- Degrees and Certificates if the program offers a degree or certificate in the college catalog, explain the trends regarding number of students who earn these degrees and/or certificates.

In 2007, Beth Smith focused the department's attention on increasing awareness of the college's mathematics students about our program's associate degree. By 2008, we began distributing a new flyer informing students about the requirements and advantages of our Associate in Science Degree in Mathematics. The degree is a great fit for students studying mathematics, physics, engineering or computer science, since most are required to complete the same coursework for their eventual bachelor's degrees. The number of degrees we award has been increasing each year, see appendix 8. Recently we updated our Associate in Science Degree in Mathematics to align with the new state transfer models to insure our graduate's admission into the CSU system. We believe that these changes will further increase the number of students earning our degree.

5.7 Describe activities your faculty has implemented to provide and maintain connections to primary, secondary and post secondary schools.

The mathematics department believes that a successful program must involve our partnership both in and outside of the Grossmont College campus. We pride ourselves on developing and maintaining relationships with the broader community and that of mathematics teachers at our feeder schools.

We have a core group of teachers who participate in the Grossmont Union High School District Mathematics Council. The high school math council meets once a month to discuss issues related to mathematical curriculum or policy. Members of the council work with math educators on curriculum, current research issues, high school exit exam, and the college transition for our students. Our representatives are allowed to take part in any dialogue and are encouraged to disseminate information either from the math council or from the college. When policy changes do occur, our representatives are encouraged to inform us and bring our opinions back to the council. Participation in this organization gives us an opportunity to stay in touch with changes that are taking place in our feeder schools, and to share with them things that our district is doing that might affect the high schools.

Several of our instructors have been integral members of one of the Cal-Pass Professional Learning Councils (specifically the East San Diego County Professional Learning Council). This group met once a month with representatives from the Grossmont Union High School District and Cuyamaca College. Participation in this organization fostered communication between high school and community college mathematics educators. It assisted in better alignment of the curriculum in an effort to enhance student success and allowed an opportunity to share knowledge and teaching techniques that had been found successful. This group discussed the disparity between similar courses being taught at the high school and the community college and agreed upon a set of prerequisite and exit skills that matched with the state and national standards.

Other outreach by the math faculty included visiting local elementary and middle schools to present intriguing math lessons to students. For example, several members of our department have repeatedly visited a local middle school to do a "Barbie Bungee Jump" activity, which includes the use of graphing calculators. This activity focuses on teaching linear regression and rates of change.

The Math for Elementary School Teachers classes have held many colloquiums where local elementary and middle school teachers have come to Grossmont College as guest speakers to discuss the issues related to mathematics education at different levels.

Every March, students from all over San Diego County converge on the Cuyamaca campus for the annual Math Field Day. This event is a mathematics competition that allows high school to compete for the title of Math Field Day Champion and is hosted and sponsored by the Cuyamaca faculty and other local colleges. Grossmont math faculty play an integral part in this event by running the ever popular "Rapid Transit" competition.

SECTION 6 - STUDENT SUPPORT AND CAMPUS RESOURCES

6.1 Indicate how the program utilizes college support services (i.e. Learning and Technology Resources Center; learning assistance centers for English reading and writing, math, technology mall, and tutoring center; Instructional Media Services, CATL).

All instructors in the Mathematics Department refer students to the appropriate support services. All math students are referred to the Math Study Center located in room 70-112 and 70-113 for drop in tutoring assistance. Room 70-112 is open to all students Monday through Thursday 8am to 9pm and Friday 8am to 3pm. Room 70-113 is open to Developmental Math students 12pm to 5pm Monday through Thursday. The Math Study Center coordinates review workshops for various topics covered in most math classes as well as extensive final exam review workshops. Students requiring more depth in assistance are referred to the Tutoring Center for prescheduled one on one tutoring. The Tutoring Center is located upstairs in the Tech Mall room 70-202. The Tutoring Center is open Monday through Thursday 9am to 7pm and Fridays 9am to 3pm. All Grossmont College students may receive free tutoring for many subjects they are enrolled in at Grossmont College. Tutoring is by appointment only. Students are allowed up to 2 hours of tutoring a week per subject, with a maximum of 5 hours per week. Appointments are scheduled in advance and are on a one-on-one basis.

Disabled students are referred to the Disabled Student Program Services (DSPS) for accommodations. The DSPS program at Grossmont College was established to accommodate the academic and support needs of students with disabilities, as mandated by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. DSPS offers eligible students access to a variety of specialized support services and assistive equipment. These services are intended to accommodate students with disabilities in regular college programs and activities.

Two aspects of student success depend on students knowing which math classes are required and student preparedness for the required classes. Students concerned with the mathematics classes required for specific majors and transfer to four year universities are referred to the Counseling Center for advisement. In order to place a student in the appropriate class the student is referred to the Assessment Office. The Assessment Office offers placement testing for algebra and calculus readiness. Furthermore, the Assessment Office also administers make-up exams for students unable to attend their regularly scheduled class on the day of the exam.

The Mathematics department employs many adjunct instructors. Adjunct instructors are referred to the Center for Advancement in Teaching and Learning (CATL). The Center has computers, both Macintosh and PC. The Center also has printers. Instructors are encouraged to utilize CATL as a resource to aid in preparing lesson plans, handouts, quizzes and examinations. Adjunct instructors are also referred to the course coordinators for examples of syllabi, class pacing and the appropriate depth of material to be covered in each course.

6.2 Analyze the results of the Student Survey - Appendix 7 and describe student utilization and satisfaction with campus resources as it relates to your program (i.e. availability, usage, relevance).

Of the students who responded to the Research, Planning and Effectiveness survey, 66% of student who responded stated that they used one or more of the listed campus resources, so of course 33% stated they had used none of the campus resources. 215 students stated that they used the assessment center and of those 160, roughly 75%, found it to be helpful or very helpful.

In the two surveys, a large percentage of students claimed to have used the math study center at least once (60% in our own survey and 78% in the Research, Planning and Institutional Effectiveness survey). Of those groups, roughly 66% claimed to be satisfied with the service. About the same percentage found the Math Study Center tutors to be pleasant to work with and well qualified.

A significant number of students stated that they used the library and Tech Mall regularly and that they found them to be helpful. What is not clear is if they meant these statements in regards to the learning of mathematics or for classes in general.

6.3 Describe some of the activities for which your department has used the Institutional Research Office or other data sources.

The mathematics department takes pride in making vital decisions that affect students' success through the use of data. We have implemented many initiatives in the last 5 years after conducting the necessary studies to make sure that our efforts were/are not misguided, and/or born out of just intuitions. We have had many studies done, but I will focus on only a few to show the extent of our usage of the IR office.

As an example, the math department has focused on our developmental math classes, since for many years our success rates in our Math 90 course was impressively low (see below) averaging around 45-55% (that was a good year) each year. This is a huge concern for the department since we have approximately 1000 new students to Grossmont place in Math 90 every fall. Which means, that there is a bottleneck effect at the math 90 level, thus preventing our students from moving through the system and achieving their ultimate educational goal.

Because of this, the department decided to create a developmental math committee, under the tutelage of the coordinator, and discussed these success rates at length. We started by looking at the support system that we had in place for these students. We have an extensive Math Study Center (woefully too small however) that provides free math tutoring to our students. We had done a study back in 2007 on the utilization of the math study center (MSC) and the success rates of students who utilize our center. We found, not surprisingly, those students who use the center are more successful in their math courses compared to students who do not. However, we also found that very few of our students using the MSC were developmental math students. See table below:

Math Course	Fall 2004 (N = 915 MSC Users) # Visited MSC	Fall 2004 As % of Course Enrollment	Fall 2004 As % of Total MSC Users	Fall 2005 (N = 864 MSC Users) # Visited MSC	Fall 2005 As % of Course Enrollment	Fall 2005 As % of Total MSC Users	Fall 2006 (N = 1084 MSC Users) # Visited MSC	Fall 2006 As % of Course Enrollment	Fall 2006 As % of Total MSC Users
080	7	*11.9*	*0.8*	1	*2.2*	*0.1*	2	*5.6*	*0.2*
088	22	*10.1*	*2.4*	26	*11.7*	*3.0*	34	*17.4*	*3.1*
090	137	*15.7*	*15.0*	116	*14.4*	*13.4*	202	*23.6*	*18.6*
097	5	*8.3*	*0.5*	11	*26.8*	*1.3*	9	*19.6*	*0.8*
Total	**171**	***14.1***	***18.7***	**154**	***13.8***	***17.8***	**247**	***21.8***	***22.8***

We decided to make this a focus for the committee and brainstormed ways to get our developmental math students in the center. One of the committee members, Shirley, had noticed that many of her students in her math 90 large lecture class (this class holds labs next to the MSC with the aid of a tutor), used the center both outside the lab and for their subsequent math courses. She decided to have IR do a study to see if this was the case. In other words, we had the research office look to see if students who were in the large lecture classes utilized the center more than other students during their math 90 class and then the following semester. Below is the part of the result of this extensive study.

As shown in Table 2, approximately thirty-three percent of students who successfully completed a large lecture section of Math 90 and were registered for another math course in the semester immediately following completion of Math 90 used the Math Study Center, compared to approximately twenty percent of students who successfully completed a regular section of Math 90. This difference is significant (x^2 = 16.454, $p < .05$).

Table 2. Math Study Center Use in the Semester Following Successful Completion of Math 90

	Used MSC #	Used MSC %	Did Not Use MSC #	Did Not Use MSC %
Large Lecture Sections	71	*33.2*	143	*66.8*
All Other Sections	218	*20.5*	847	*79.5*
Overall	289	*22.6*	990	*77.4*

What this told us was that there were some intangibles that occurred in the large lecture that did not occur in other math 90 classes. We knew that students who were in the large lecture got to know the tutors and felt more comfortable in the MSC, so the key was to have math 90 instructors bring their classes in to the center for lessons and activities. We also had instructors give assignments to their math 90 students where they HAD to come to the MSC to complete. Many of these efforts helped more of our students utilize the center, and thus become more successful.

Although our efforts to bring in our developmental math students into the MSC has been a focus these last few years, we have been very unsuccessful with these efforts (based on MSC Red Canyon reports).

Although we focused on the support system in place for our developmental math students we also wanted to apply strategies that focused on pedagogy. As part of the Basic Skills initiative (BSI), the math department participated in many workshops and conferences associated with BSI. On one of our discussions about the initiatives in a department meeting, one of our colleagues, Mike, made a comment about how our math 90 students do so well during the summer. So, we decided to check to see if this was the case. We ran the data:

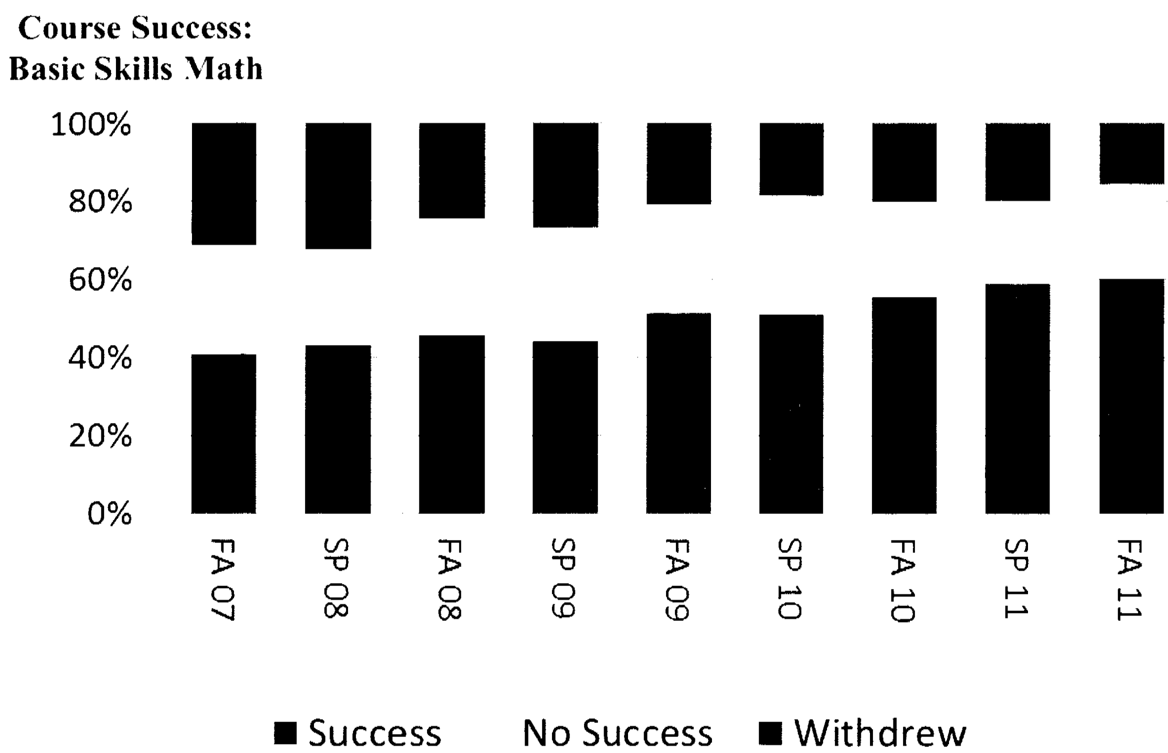
% Success Rate – Math 090 (Elementary Algebra)											
2006-07			2007-08			2008-09			2009-10		
Sum 06	Fall 06	Spr 07	Sum 07	Fall 07	Spr 08	Sum 08	Fall 08	Spr 09	Sum 09	Fall 09	Spr 10
60.42	45.09	45.41	65.65	38.04	41.32	68.00	44.89	43.02	77.88	49.13	48.98

Sure enough, we noticed that those students taking math 90 in the summer did considerably better! So, we brainstormed what is different from the regular and summer class. We came up with these ideas.

- Students typically only take one class in the summer
- A shorter more intense class environment
- Meets everyday
- Since we see them every day we can inject some much needed review of previous topics
- During the regular semester they must take 12 units to be considered full time

So we decided that we would start an accelerated class that would try to infuse some of these key elements from our study. We created the Math Academy in the Fall 2009, which was a linked 6-week Math 88 (Pre-Algebra) class = 4 units, followed by a 10-week Math 90 (Algebra) class = 5 units. This gave the students 9-units and so they just needed another 3 units to be FT. We also utilized monies from BSI to purchase books for these students. We have been running at least two sections of MA every semester since.

We believe that all of these efforts have helped us bring up our success rates in all of our Developmental Math courses.



Other studies done by the department and some outcomes

- Math Placement data vs. success Fall 2010, changed our cutoff scores starting Fall 2011
- **Math 090: Course Placement and Outcomes (investigated whether students were taking the course they were placed in…yes they are)**
- **Mathematics Majors: First Mathematics Courses**
- **Longitudinal Study for Basic Skills Math**
- **Math 160 course success based on pre-requisite**

6.4 Working with your library liaison, evaluate and provide a summary of the current status of library resources (i.e. books, periodicals, video, and databases) related to the program.

The mathematics department coordinates with the library the loaning of textbooks for student in our Math Academy. Also, the library has copies of all math textbooks in reserve for students to check out. Graphing calculators are also available for check out. Various DVD's on mathematics content are also available for students to check out.

6.5 How does the program work with the various student support services (i.e. Counseling, EOPS, DSPS) to help students gain access to courses, develop student education plans, make career decisions and improve academic success? How does your program communicate specific and current information that can be used by those student service groups?

The math department frequently works with the Counseling department concerning course prerequisites, student advising, and proper student placement. We rely heavily on counselors for recruitment of students for our Math Academy (see section 4.2 and 6.3) as well as our Allied Health Learning Community link (see section 5.3). Whenever a new course is created or the math curriculum is changed, a math chair or math faculty member meets with the counseling department to explain the change and answer any questions.

The math department also keeps a good working relationship with DSP&S. Math instructors refer students who struggle with learning skills to DSP&S to determine if they have a learning disability. DSP&S provides note takers for any writing impaired student. Students with a learning disability are encouraged to take advantage of the distraction and noise free testing environment provided by the DSP&S Testing Center. Recently, Jenny VandenEynden worked with DSP&S and improved the Testing Accommodations form. The changes made it easier to indicate the appropriate calculator that could be used during and exam proctored by the DSP&S Testing Center. The mathematics department would like to commend the DSPS Testing Center for providing excellent service and being very easy to work with.

Through the spring 2011 semester, the math department offered one Math 90 class each semester which was hidden in the class schedule. This was a special section for DSP&S students. The class was smaller and addressed the special needs of DSP&S students. The instructor met with a DSP&S counselor throughout the semester to discuss any student issues. Unfortunately, this special DSP&S section of Math 90 was eliminated after the Spring 2011 semester due to budget shortfalls.

The Grossmont College Printing and Duplicating center has also been very supportive of the mathematics department. They are always very helpful and easy to work with. Our duplicating requests are always done very professionally and expediently.

6.6 Describe how the department uses available technology to enhance teaching and learning and to communicate with students? According to the Student Survey in Appendix 7, how do students respond to the use of technology?

The Mathematics Department prides itself in the use of technology to enhance student learning. Many instructors throughout the department use various forms of technology in the classroom to enhance lectures, communicate with students, and provide information to students.
Many faculty members developed and maintain web sites which include instructor contact information, course information and materials, links to resource sites, video lectures, practice problems, and grade information. The Mathematics department web page includes a variety of resources and information for students to keep them informed of workshops, test preparation tips and reviews, developmental math and other course resources, degree programs, information about the Math Study Center, and information on faculty.

Many different computer programs are used from the faculty to assist students in the classroom and at home. Since drawing 3-D figures is a bit challenging on a 2-D board, instructors use a variety of computer interactive programs to demonstrate different concepts. In Calculus, Converge is used to show the revolutions of solids. Geometer's Sketchpad is used to illustrate the characteristics for a variety of functions including trigonometric, quadratic, and exponential. In addition animation/java applets along with Nucalc software is used to illustrate limits, related rates, and optimization. In Statistics classes, online applets are used to simulate sampling distribution, StatCrunch is used to display student data and collect online surveys. We also have instructors that bring technology into the Basic Skills Math classes by using motion detectors to explain the slope and rate of change.

The graphing calculator is highly used in many class sections. The use of the graphing calculator allows students the ability to see the solutions for the equations they are solving. Students are taught how to find the zeros, intercepts, intersections points, and maximum/minimum points, rates of change for tangent lines to the curve, and areas. In Statistic courses, the graphing calculator is used to find descriptive values such as mean and standard deviation, regression analysis, confidence levels, and hypothesis testing. To help the students with the use of the calculator, many instructors have calculator help links on their web sites, and the Math Study Center holds calculator workshops throughout the semester to aid students in the use of the calculator.

Outside the classroom, many instructors make the use of MyMathLab and/or other computer system to assign homework and review for the students. Through these systems students can access the text, videos, PowerPoint presentations, guided solutions, practice problems, and even class discussions. MyMathLab now has a new feature to have students show their work in addition to just the final answer.

Two of our courses are offered online, Math 160 Statistics and Math 103 Intermediate Algebra. These two courses do use MyMathLab to hold class discussions, assign homework and exams, as well as additional course information. Since communicating in "real time" is rather difficult in this environment, both classes enhance the course through the e-conferencing system Elluminate and CCCConfer. In Elluminate, the instructor holds online office hours in real time where the student can here the instructor and see problems worked out. Through the system these sessions can be archived for future reference. CCCConfer is used to review for exams or post solutions to an exam in lecture format.

To keep up to date on the current technology faculty members attend various workshops like ICTCM and AMATYC. The Department is always open to new forms of technology to enhance the environment in the classroom and student learning.

According to the student surveys, 36% of students commented on using their instructor's website to learn course material and 74% stated that e-mail was a primary mode of communication. Furthermore, 48% of students responded that they learned course material through internet resources.

6.7 Identify and explain additional technological resources that could further enhance student learning.

All of these types of technology mentioned in the previous sections are changing fast and are also becoming more relevant in the modern math classroom. It is safe to say that we need to continue to experiment with all of these types of technologies even more in the future and find which ones best serve our students and are reasonably priced. Many of our instructors would like to look into the use of tablets, i-pads or smart pen technology for classroom management and instruction.

6.8 Comment on the adequacy of facilities that your department uses. (e.g., does the room size and configuration suit the teaching strategies?)

Insufficient space and inadequate facilities have been a growing concern for the mathematics department over the past 4 years. The mathematics program has no centralized location for students in need of math assistance. Faculty offices, the Math Study Center and the 30+ classrooms scheduled for math instruction are spread across campus. The majority of our adjunct instructors do not have suitable office space in proximity to other math peers. As a result, it is challenging for the department to engender an educational community with math students, faculty and staff.

The math department's use of campus facilities can be classified into 3 categories: classroom space, the math study center, and faculty offices. The department's facility issues and needs have been well documented in a series of Activity Proposals (APs) written from 2009 to the present. Below is a summarized list of our facility related Activity Proposals:

2009-2010	AP-371	Centralize math classrooms, an expanded math study center, math faculty offices and math computer lab space.
	AP-291	Acquire dedicated space for Developmental Math Tutoring
2010-2011	AP-371	Acquire math classrooms, lab space, math offices in close proximity to each other in 300-North (Bldg 36) and 300-South (Bldg 31). Expand math study center to include a Basic Skills tutoring area, math faculty offices and math computer lab space.
2011-2012	AP-1059	Expand the Math Study Center by creating, re-purposing, or finding more space in which to tutor math.
	AP-1057	Rooms 53-552, 53-553, 53-554 are not conducive for teaching math classes at the room maximum.
2012-2013	AP-1228	Relocate and expand the Math Study Center to better serve basic skills students.
	AP-1057	Rooms 552, 553, and 554 are inadequate for delivering math content and prevent students from having reasonable access to a sound mathematical education.
	AP-1229	Improve classroom space in 31-357, 31-358, 31-359 for improved teaching and interaction with students. Replace older larger desks with new smaller desks and install additional whiteboards.
	AP-1198	The Grossmont College math department would like to create the "new mathematics classroom."

Classroom Space Issues and Needs

During 2011-2012, the department offered a total of 262 sections of mathematics, scheduled in 8 different buildings across campus and in 31 different rooms. However the majority of math classes are offered in Building 31 (rooms 356, 357, 358, 359, 376) and Building 53 (rooms 552, 553, 554). Due to the last 4 years of college-wide budget and section cuts, math classes are at maximum capacity. Unfortunately, the classrooms in Building 53 (rooms 552, 553, 554) are too small to comfortably serve 45 students, the classroom maximum. Due to the wide and shallow rectangular room configuration, students on the extreme right and extreme left find it physically difficult to see the sections of the white boards or view the digital projection screen. There is little room for the instructor to walk between the white board and the first row of chairs, and it is impossible to walk up and down the rows to check student work. The computer smart cart and required accessibility tables eliminate additional space for students. We realize that there is very little we can do to create more space within an existing classroom, but as new space becomes available, a reorganization of classrooms should be done to accommodate the size of the math department's classes currently scheduled in rooms 552, 553, 554.

Math Study Center Space Issues and Needs

The math department is in desperate need of relocating and/or expanding the Math Study Center (MSC). Currently the MSC is located in room 70-112 in the tech mall, which is 752.5 square feet. The MSC is configured with 5 large desks seating at most 30 students comfortably. There are also 17 computer workstations used by some students for online homework assignments. When the number of students in the MSC reaches 30, new students walking in the door begin to have difficulty finding a seat to work at. Some students become frustrated and leave the center. The MSC is also woefully inadequate in providing tutoring services to our basic skills math students, as most of the students who frequent the MSC are enrolled in higher level courses. We believe that a bigger space would provide better accommodations for the basic skills students and their tutors.

During the Fall 2011 semester the Math Study Center conducted a survey. 100 students were surveyed.

- 39% reported having **difficulty finding a seat** in the Math Study Center.
- 12% reported being **turned away because the center was too full**.
- 44% believe the space in the Math Study Center is **NOT** adequate.
- 83% report that the **tutors are helpful** while the remaining 17% are neutral.
- 86% reported their questions were answered in less than one minute while the remaining 14% were helped in less than 5 minutes.

The results of the survey show that students are having difficulties finding a place to study in the center. The results also show that the students who are able to access the center are receiving a useful service. When the Math Study Center is expanded to a larger area the center will be able to serve a larger number of students with the same excellent service under the same budget.
In order to better serve more students, our Math Study Center space needs are:

- A minimum of 1500 square feet of tutoring space.
- An additional minimum of 800 square feet of lab space with 40 computers for the Large Lecture Classes.
- Rectangular table seating for 60.
- White boards and Bulletin boards around the room.
- 20 computer work stations in the tutoring room.
- Couch seating for congregational discussions in front of a white board.

Office Space Issues and Needs

Math department staff offices are clustered in groups of 2-3 and spread across several areas on campus. The majority of the 40+ adjunct math instructors have no dedicated part-time office space in proximity to other math peers. A handful of adjuncts share office space in overcrowded full-time math faculty offices. The office facilities available for math adjunct faculty are sub-par and not conducive for meeting with students or collaborating with faculty peers. The creation of a centralized math department would include adequate full- and part-time faculty office space, be in close proximity to the Math Study Center and would ideally be located near several core math classrooms.

SECTION 7 - COMMUNITY OUTREACH AND RESPONSE

7.1 How does your program interact with the community (locally, statewide and/or nationally)? Describe activities.

The mathematics department while not overly active in community affairs does give focused attention to a few well chosen activities. At the local level, we work with Cuyamaca College on the Senior Mathematics Field Day. This mathematics competition has been enjoyed by high school students for the last fifty years. Teams of students from local high schools compete in various events which involve challenging mathematical problem solving. In particular, the Grossmont College mathematics department develops and runs an event known as Rapid Transit which requires students to estimate and calculate answers to math problems quickly and repeatedly. Students must answer most of the questions through mental computation and due to the speed involved, most students will not answer all the questions.

At the state level, our department is proud to have Beth Smith serving as the current Vice President on the statewide Academic Senate. It is an honor that many colleges may never enjoy. Beth often uses Grossmont College and the mathematics department as examples of quality in her work developing policy for community colleges across the state. See section 1.2b of this document for more elaboration on the wonderful work done by Beth Smith.

At the national level, our mathematics club competes each year in the AMATYC, American Mathematics Association of Two Year Colleges, Student Math League. This national mathematics competition is very challenging and produces fantastic problem solving performances each year by community college students from across the country. The competition is done twice a year, once in the fall and once in the spring. It consists of twenty non-standard mathematics questions ranging in difficulty and students are given one hour to do as many as they can. To complete even ten of the questions correctly in the given time is very challenging even for the best mathematics students. Better scores require practice in competitions and experience in a range of mathematics classes. In good years, the Grossmont Math Club has scored in the top 25% of colleges in the nation.

We recently started the Cal-Teach Program to introduce perspective mathematics teachers into the profession. Each semester we send some of our students into the local high schools to gain some experience into the teaching profession. See section 2.6 for more details.

One member of our department attends the local high school mathematics council which is made up of representatives of the schools in the Grossmont Union High School District. This allows communication to flow in both directions and allows us to be informed about important trends or changes taking place in the local high schools. See section 5.7 for more details.

Finally, we are staffed with many adjunct professors who also teach full-time at our local high schools. Most have been teaching for many years and are leaders in at their high school campuses and in the Grossmont Union High School District. Obviously, this connection is very beneficial to both the college and the local schools.

7.2 If appropriate, summarize the principal recommendations of the program advisory committee since the last program review. Describe how the program has responded to these recommendations. Include the date of last meeting and frequency of meetings. List organizations represented.

N/A

SECTION 8 - FACULTY/STAFF PROFESSIONAL DEVELOPMENT

8.1 Highlight how your program's participation in professional development activities including sabbaticals (listed in Appendix 10) has resulted in improvement in curriculum, instruction, and currency in the field.

The mathematics department is very proud of the work done by Irene Palacios to improve distance education. She attended many conferences to educate herself in the latest improvements in the field of distance learning. Much of her focus has been to make the distance education model seem as much like regular education as possible by allowing students to watch "live" lectures, ask their professor questions and get responses all in real time. Specifics on her work can be found in section 2.8 of this document. Irene has also shared the results of her work with other staff members at the college through staff development activities or the work of the Technology in Teaching and Learning Committee at the college.

The recent college wide staff development focus on Student Learning Outcomes forced the mathematics department to reflect on our own strengths and weaknesses in our curriculum and how we instruct our students. Some specific outcomes are the improvement in data collection, more conversations about the content and level of difficulty of exam questions, and the increased role of the course coordinators. However, the process has also shown us that we have a long way to go to narrow the range of success rates in courses and more importantly to increase student success across all levels of mathematics instruction. It is the awareness of our deficiencies that motivates our continued improvement in teaching and learning.

Also it is important to mention that each year we send department members to various kinds of conferences all across the country. The knowledge gained at these events is then shared among members at department meetings or staff development events. Recent issues have dealt with better uses of technology such as online course resources and management tools or statewide trends in mathematics education like increasing the success of developmental math students. Ideas from these conferences have lead to specific changes in how we teach or how we engage in the local college governance and development. Specifics are listed though out this document.

Also worth mentioning is the hard work of Michael Lambe helping to coordinate the part-time faculty professional development workshops. He has put lots of effort into his coordination of flex week calendar for part-time faculty and into his monthly meetings with the Academic Senate Part-Time Officers Committee.

8.2 Describe any innovative professional development activities your program has created.

One very innovative activity has been Irene Palacios' work with the computer application known as CCC Confer which makes distance learning a "real time" activity. Irene has shared her experiences with all faculty members that wish to learn more about the current state of distance education. Irene is quick to share activities that have worked well and those that she has found to be frustrating. She has held many workshops during flex week for all staff members.

Shirley Pereira has also really made an impact on the way the college uses data. She has been very innovative in re-organizing the existing data the district uses to make analysis easier and more effective. One specific example is her work with the mountains of Program Review data that she has made more accessible and easier to work with. Furthermore, she has really helped the college administration and departments realize how data can create awareness of issues or problems that have not been address or gone unnoticed for years. Her presentations at various meetings and at numerous campus events have brought attention to many kinds of issues that affect the college.

Shawn Hicks has done workshops for flex week on the use of "clickers" in the classroom and how they can be effective in keeping every student engaged in a classroom discussion. Also, Nemie Capacia and Cary Lee have done workshops at the AMATYC and CCC3 conferences on creating dynamic mathematical models or animations for use in teaching mathematics. See appendix 10.

8.3 Describe how your faculty shapes the direction of the college and/or the discipline (e.g., writing grants, serving on college/district committees and task forces, Academic Senate representation, presenting at conferences, etc.).

To see what our faculty has done to shape the direction of the college simply look back at our most successful goal, section 1.2b, where we share how recently our members have really gotten involved in campus leadership. Furthermore, Irene Palacios, Nemie Capacia and Cary Lee have presented their innovative work with teaching with technology at many conferences, see appendix 10. At the recent 50th anniversary of the college, the department made quite a showing with two activities; our math cab and the math "wheel of fortune" game. The math cab would drive people around the anniversary event, testing their math knowledge in fun as they traveled. The wheel of fortune game was very popular with everyone even with its mathematical themes.

SECTION 9 - STAFFING TRENDS AND DECISION-MAKING

	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008
# of FT faculty	13	13	14	16	16	17
# of PT faculty	50	55	55	44	52	49
Total FT+XP FTEF	18.632	17.415	16.166	18.75	17.065	18.549
Total Reassigned Time	1.7735	1.7735	1.8735	1.8735	2.1126	2.1126
Total PT FTEF	21.562	24.492	24.86	23.81	24.561	24.428
Total FTEF	40.19	41.91	41.03	42.56	41.63	42.98
Earned WSCH	21890	19368.3	21867.5	19946.2	22494	21259.8

	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011
# of FT faculty	18	18	17	17	17	16
# of PT faculty	54	53	45	46	45	40
Total FT+XP FTEF	17.68	16.347	17.163	16.712	18.012	16.379
Total Reassigned Time	2.413	2.413	2.613	2.613	2.513	3.013
Total PT FTEF	23.146	24.913	20.462	19.848	18.147	18.998
Total FTEF	40.83	41.26	37.63	36.56	36.16	35.38
Earned WSCH	23372.5	21768	24673	23189.5	24750	22774

9.1 Explain any observed trends in terms of faculty staffing and describe changes that have occurred (i.e. reassigned time, accreditation issues, expertise in the discipline, enrollment trends).

The staffing level went through an increase from 2005 – 2009 and then a decrease from 2009 to the present. The increase was due to the hiring of Arturo Millan, Corey Manchester and Shawn Hicks. The decrease was due to the retirement of Bob Chow, Peg Hovde and the departure of Jim Tarvin. Because the fulltime staff has be very involved in campus governance, see section 1.2b, our level of reassigned time has been increasing each semester. Also, a key trend is the significant decrease in the number of part-timers from a high of 55 down to 40.

Another key trend not in the data but one that has definitely been affected by staffing changes is the increased collegial work environment of the department over the last decade. The department is staffed with outstanding teachers who also have taken leadership roles campus wide and are able build consensus within the department when solving problems such as curriculum issues, SLO's, scheduling, etc. Examples of our new level of collegial work can be found throughout this document (finding solutions to development math issues, facilities, etc). Furthermore, this document itself was really a team effort, with valuable input from all members of the department.

9.2 Discuss part-time vs. full-time ratios and issues surrounding the availability of part-time instructors.

Analysis of fulltime/total FTEF shows a variation of 40% to 50%, with an increasing trend in the most recent years. The recent increase seems primarily due to an overall decrease in FTEF because of the budget constraints. Even with an increase in the amount of reassigned time for fulltime faculty members, the decreased number of sections offered ensures this ratio continues to increase. Furthermore, part-time ratios have held somewhat steady between 50% to 60% and decreasing in the most recent years. However, we have lost many part-timers because of the decrease in FTEF. The number of part-time faculty has decreased from a high of 55 down to 40.

	Fall 2005	Spring 2006	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009	Fall 2009	Spring 2010	Fall 2010	Spring 2011
FT % of Total FTEF	46.4%	41.6%	39.4%	44.1%	41.0%	43.2%	43.3%	39.6%	45.6%	45.7%	49.8%	46.3%
PT % of Total FTEF	53.7%	58.4%	60.6%	55.9%	59.0%	56.8%	56.7%	60.4%	54.4%	54.3%	50.2%	53.7%

9.3 List and describe the duties of classified staff, work study and student workers who are directly responsible to the program. Include a discussion of any trends in terms of classified staffing and describe changes that have occurred (i.e. duties, adequate coverage, funding issues).

We are fortunate in our department to employ a Learning Assistance Center Specialist who is in charge of the MSC and a clerical assistant who has been instrumental in helping the department run as smoothly as it can. We also have many tutors and student workers who work in the MSC and also TA's for many of our instructors.

The following is a snapshot of the duties that are outlined for each of the above:

Learning Assistance Center Specialist

- Coordinate and maintain the activities of the Math Study Center
- Create and update brochures and training manual for the center
- Prepare and maintain tutor schedules, records, files, payroll, and budget
- Interview, hire, and provide direction and training to about 20-25 tutors
- Monitor tutor's hours and schedule
- Advertise the Math Study Center (by scheduling me or a tutor to give a brief presentation about the center and hand out brochures to every math class each semester)
- Monitor student log-ins (Red Canyon database) for Math 198
- Operate office equipment and perform general clerical duties and data entry
- Coordinate regular computer maintenance and notify the appropriate personnel (Information Systems) for computer repairs and complex problems
- Create and update the Math Study Center and Math Department's web pages
- TI mini-course (staff development) workshop coordinator (registration, venue, caterer, brochures, invitations, correspondence, hotel arrangements, equipment loan, etc.)
- In charge of registration for various "Pathways through Algebra" workshops/conferences, speak about the Math Study Center at the Pathways conferences (using a power point presentation), mentor for several CA community colleges by putting together and distributing requested information about the study center's creation, set up, budget, and tutor training

Math Department Clerical Assistant

- Support all aspects of the Mathematics department and study center
- Operate office equipment
- Perform clerical duties
- Create and maintain spreadsheets
- The mathematics class schedule database
- Type correspondence, create flyers
- Keep accurate files and records
- Answer a multi-line phone, and assist instructors within the department when needed

- Order department books from book reps

Work Study & Student Workers (tutors and TAs):

- Tutor math students in all subjects of math (peer one on one and small groups)
- Assist students with computers and math questions
- Go through tutor training and earn A or B's in all Math classes taken in order to tutor
- Grade papers for instructors when assigned
- Answer the phone.
- Assist the clerical assistant and the Math Lab Supervisor with light office work.
- Assist students and other tutors with learning and programming calculators
- Assist students with registrations and log ins for Math 198
- Help instill in the students good study habits
- Open and close the Math Lab. Opening procedures include: Calling security to unlock the doors, make sure the 59 computers are up and running, and straighten up the workstations. Closing procedures include: Properly shutting down the computers, straighten up, and calling security to lock up.

Over this program cycle we lost one clerical assistant, Darlene Rosemary, and she has since been replaced by Melissa Mitcham. The math department does see a future where the Math Study Center will increase in size and responsibilities to better meet the needs of our developmental mathematics and statistics students. To meet these needs, the staffing roles of the math study center may need to evolve.

9.4 How are decisions made within your program? What role do part-time faculty and/or classified staff play in the department decision-making process?

As mentioned throughout this document, our department is working better as a group now than in the past. Important issues are discussed at department meetings and everyone's input is desired and allowed. Most often, we come to a consensus with everyone in agreement and in support of the group's decision. Occasionally, when an issue is extremely important or consensus cannot be achieved we use a system of protocols created by Michael Lines in the last program review cycle. These protocols provide a historical record, a systematic process and a tally of the vote on the issue. Even those members who may disagree with the outcome of a particular decision feel that the process of arriving at the decision was fair to everyone.

The adjunct faculty members have primarily had a few ways of providing input to the department. The flex week meetings allow them to discuss issues before the whole department. They are free to bring up issues that have been a challenge or provide their input on specific problems the department may be facing. Furthermore, at the course level, they are given the opportunity to address concerns they have with a course, give input about the course level student learning outcomes and generally be involved in the course level planning each semester. An example is the many contributions made to our developmental math program from Jennifer Denney. Finally, we should note the work of many of our adjunct faculty in the Grossmont College Academic Senate and on the department's hiring committees.

The results of the faculty survey, appendix 7, show a department that seems content and collegial. The responses were usually between 80% and 90% in agreement or strong agreement about issues such having the support and tools needed to teach successfully, access to training and staff development, input with regard to teaching schedules and department decisions, etc.

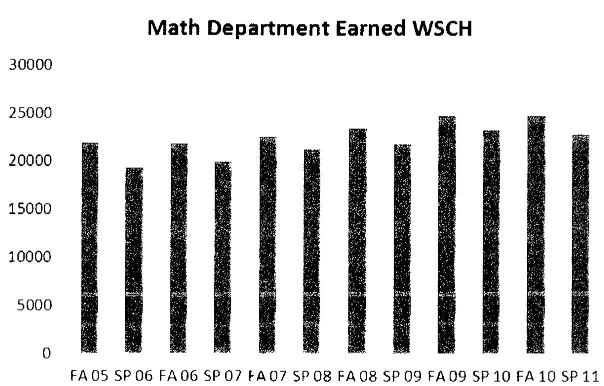
SECTION 10 - FISCAL PROFILE AND EFFICIENCY

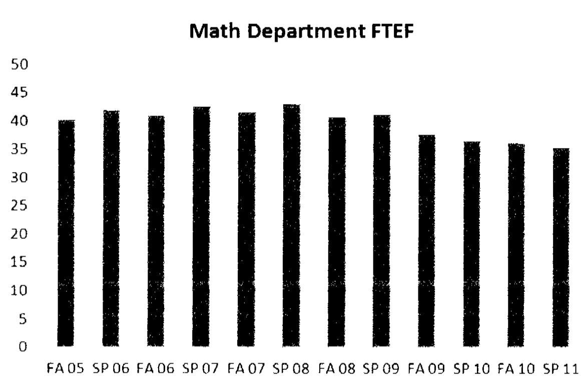
10.1 Analyze and explain any trends in enrollment, numbers of sections offered, average class size and efficiency.

Analysis of course level data from 2005 to the present from appendix 3 shows our enrollment figures from each course slowly rise to a maximum in 2009 and then recede somewhat. However, the actual number of sections has decreased somewhat dramatically in the last few years due to budget cuts. FTEF has decreased from a high of 42.98 to a present level of 35.38, a difference of 7.60. This difference equates to 114 units or roughly 30 sections cut from the mathematics program over the last few years. Therefore, since the enrollment has roughly returned to the level it was in 2005, but the number of sections has been reduced, our classes are filled to capacity and our efficiency is very high.

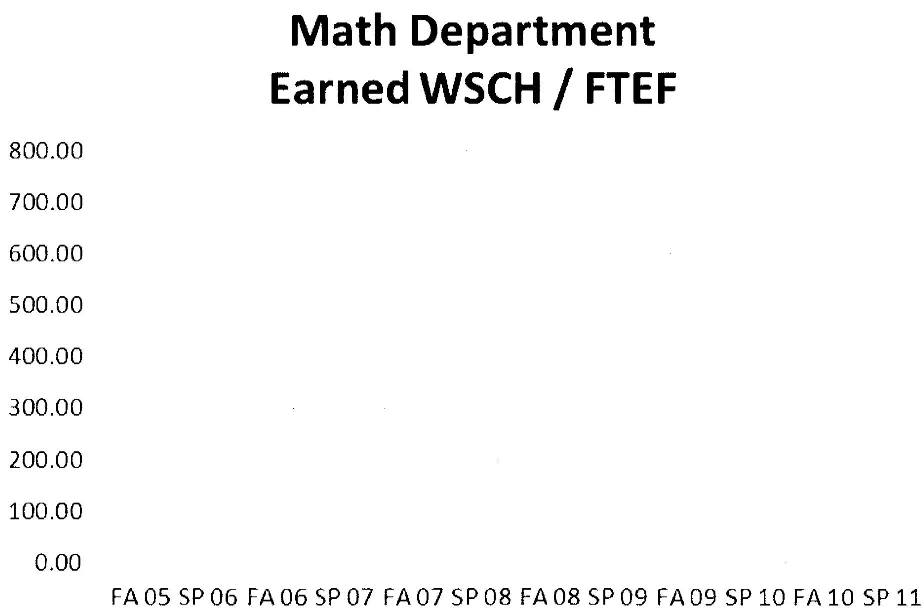
10.2 Analyze the Earned WSCH/FTEF data in Appendix 11- Grossmont WSCH Analysis. Explain trends for your overall program and for specific courses over a five-year period.

Since Fall 2005, the mathematics department's WSCH has grown slightly, but the FTEF has decreased over the last few years since 2008. This has lead to high efficiency ratings in the deparment, many of our courses are over 100%, see data table in appendix 11.





Thus, the earned WSCH/FTEF ratios are showing an increasing trend and therefore the department is running very efficiently.



Most of our courses (math 88, 90, 103, 110, 120, 160, 170, 175, 176, 178, 180, 280, 281, 284, 285) have increased their Earned WSCH/Max WSCH or another measure of efficiency, see the % of max by course table in appendix 11. Many of these sections have recently had this ratio increase to above 100%.

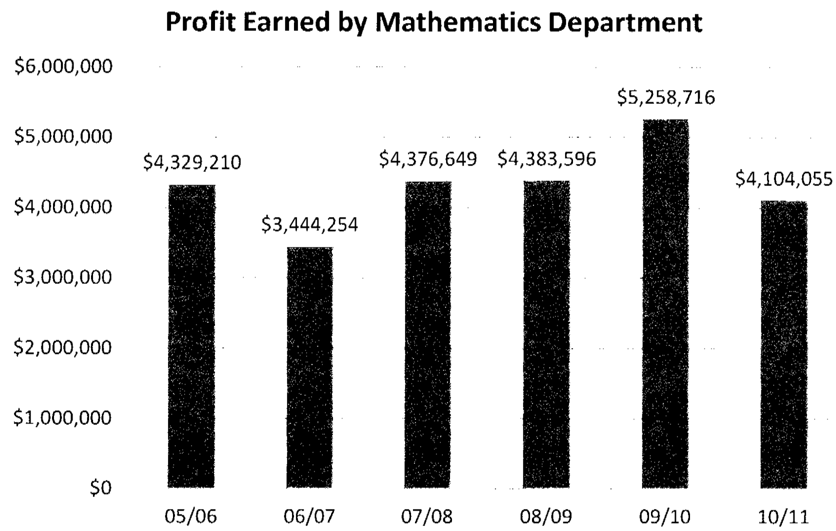
A few courses such as the elementary teaching sequence (math 125, 126, 128) or the high school math teaching course (math 177) have lower efficiency levels but cater to important programs.

10.3 Using Appendix 14 - Fiscal Year FTES Analysis by Program Report and Appendix 15 - Fiscal Data: Outcomes Profile, analyze and explain the cost per FTES of the program in relation to the earned WSCH per FTEF.

Over this program review cycle the cost per FTES of the program rose initially from 1,656 in 2005/2006 up to 1,905 in 2008/2009 but then decreased with budget cuts and retirements of Bob Chow and Peg Hovde. Then in 2010/2011 the cost per FTES increased to 1,828 because of the drop in FTES due to budget cuts was more significant than the savings due to a smaller staff, reduced by loss of part-time faculty and the increase in full time faculty reassigned time.

The earned WSCH per FTES stayed fairly consistent during the first four years of the cycle, staying near 500 but rose significantly to the mid 600's since 2009 to the end of the cycle, which we can attribute primarily to budget cuts.

As we have previously stated, the mathematics department is truly a cash cow for the college. Using the revenue generated and cost per FTES shown in appendix 15 we have calculated the profits generated by the mathematics department over this program review cycle. We realize that these "profits" are used by the college for many other operating costs, but we want to make clear that we do generate lots of cash for the college. Our program is relative cheap to operate and serves a tremendous number of students each year.



10.4 If your program has received any financial support or subsidy outside of the college budget process, list the amount of any outside resources and how they are being used.

N/A

SECTION 11 – SUMMARY AND RECOMMENDATIONS

11.1 Summarize program strengths and weaknesses in terms of:

- **teaching and learning**
- **student access and success**
- **implementing and executing the department's vision and mission statement**
- **fiscal stability**

Program Strengths:

The mathematics department is staffed with an outstanding group of mathematics teachers who pride themselves on teaching mathematics in a very conceptual and relevant manner. They bring mathematical knowledge, problem solving skills and passion for teaching to the classroom each day. Just as important is our department member's genuine concern for students and their success. One clear example is our commitment to our developmental math students and how all members of our department have taken an active role in attempting to increase their success rates, see sections 5.1 and 6.3. Many other examples exist of students at various mathematical levels being positively affected by the work of members of the mathematics department. We hear all the time from students who have aimed a little higher, or who have chosen a more technical field, or who have changed their major to mathematics, all because of the impact of the members of our department. Thus, although are members are excellent mathematicians, maybe an even more important attribute is their ability to work well with people.

Furthermore, as we have clearly stated throughout this document, mathematics department members have become very active in college wide governance and problem solving. Our department members have been instrumental in helping the college become more efficient, more productive and better able to serve the needs of students. Even through the trying budget conditions of recent years, mathematics department members have made our department, helped our division and the college as a whole devise data driven strategies to meet the needs of our very diverse student body and help them to reach their academic goals.

We have shown innovation when required to solve a diverse range of problems. A decade ago it was to help our own somewhat dysfunctional department to find a better method of working together. Michael Lines provided a solution in the form of protocols and procedures used for decision making. These days, although we may not formally use the protocols each time we face a problem, we still follow the basic ideas and are much better at reaching a consensus on almost every decision we face. Irene Palacios was very innovative when she brought distance education into "real time," see section 2.8. Shirley Pereira has shown lots of innovation in the use of data to help departments think in new ways about the issues they face, see sections 1.2 and 6.3. And many members of the department are extremely innovative with how the teach and get students to conceptualize mathematics, see section 5.2.

We are one of the most profitable departments on campus. We serve more students than other departments as seen in our percentage of FTEF for the college. We are very efficient by serving lots of students with only a few teachers and most of our classes are filled to capacity, see section 10. We are relatively inexpensive because we do not need fancy equipment, only well thought out classrooms some good tutors. Therefore, we have generated lots of money for the college for many years and will continue to do so.

The mathematics department has become a good user of data. We gather data and let it tell us what needs to be done. We have been surprised sometimes by results of studies we have done while other times they simply confirm our own suspensions. Sometimes we are forced to look at ourselves and realize that we are not doing very well. Sometimes our studies lead to more studies. The main issue however, is that we have become a data driven department where our successes and failures are becoming clearer and thus easier for us to focus on.

One example of the department's use of data has been on our goal of increasing our success rates. Internal studies have helped us to look for new solutions to the problems faced by developmental math students, see sections 5.1 and 6.3. We can also see that some of our changes are helping them be more successful but that we still have a long way to go. Another example of data shown in this document, section 2.4, shows that while success rates in our courses have increased slightly overall, the range of success rates varies significantly across sections of the same course and this type of spread of success happens in all of our courses. Furthermore, in way too many sections the success rates are very low, less than 30%. Clearly, the administration at Grossmont College or the legislators for state of California cannot be happy when such a small fraction of students are successful in a course. Just the awareness of data such as this will create a need to do something about it. Of course we will have to start with a departmental discussion on what success means and how we can be sure we are measuring it well. As we have said the department is staffed with fantastic teachers who all come to work each day with the goal of doing the best for their students and they will continue to look for ways to improve this data which of course reflects poorly on all of us. This ability to face our own weaknesses and look for ways of trying to improve these outcomes is another strong point of our department.

Program Weaknesses:

Recently, the college was visited by staff from Kingsborough College in New York, who were working with Grossmont College on a grant proposal to improve our overall student success rates. They asked us where the mathematics department was. Of course we had to answer that some of the math instructor offices were in this building and others were in that building and others in that other building over there.... And if students need tutoring well, they go to that building but the class rooms well, let's see... We could have told them where the Exercise Science department was or where sculpture was taught, that would have been easy. The Kingsborough College faculty could not believe we did not have a mathematics building.

Clearly a huge problem for perspective students at Grossmont College is to know where they need to go to get help in math. Obviously, things have been working fairly well for the last fifty years and students have been directed towards the various locations they needed to find answers to math related questions. However, when any of us are asked what subjects taught in school are the most vital for the future of our country, we always come back to the disciplines of English and mathematics. Students must be able to communicate well and have analytic and problem solving skills. We believe that the mathematics department should have its own building; one building where students can get guidance, get tutoring, attend lectures and have all their mathematical needs met. We have given lots of data and examples of why we need better facilities throughout this document, see sections 1.2, 4.1 and 6.8. **Clearly, our facilities are a weakness of this department.** If it is true that mathematics education is vital for the citizens of our country to make them more competitive and better members of the world society, then it would seem that our mathematics students at Grossmont College should have the best facilities on campus, see front cover.

Another weakness for the department is the lack of full time faculty members. We hired a few during the beginning of this program review cycle but then some others retired and have not been replaced due to the budget situation. Furthermore, our members are more involved in college governance and spending less time in the classroom. Beth Smith has responsibilities at the state Academic Senate and does not teach any classes currently. The case for more fulltime faculty has been made in sections 1.3, 9.1 and 9.2 of this document. As the budget situation improves, the mathematics department should be one of the first to be re-staffed to the appropriate levels.

Also a weakness is our low success rates. Even though are rates are similar to other community college math departments across the country, we are still nearly ten percentage points below the college overall. We need to continue to improve the chances of success for all of our students for this is the key mission of a community college. We are here to provide a chance for a college education. If we have high standards then not everyone will make it through our program. However, our goal should be to reach out to as many students as we can and help as many as we can to reach their academic goals.

11.2 Describe any concerns that have affected or that you anticipate affecting the program before the next review cycle. These may include items such as increases or decreases in number of full-time and adjunct faculty, sections offered, and growth or decline of the program.

The biggest issue concerning us at present would be the number of sections we have had to cut from the schedule due to budget constraints. Even though some cuts were probably good for the department and made us more efficient, we cannot make any further cuts without dramatically affecting student access or their graduation timelines.

The other big concern for us is the size and scope of the Math Study Center. We feel that more support is necessary for two key underserved populations of mathematics students, developmental and statistics students. Both of these groups have somewhat special needs and we have tried to show in sections 4.1, 6.3 and 6.8 of this document that we feel that changes need to be made in the MSC. As we have shown, the Math Study Center does a great job with some populations of math students, but more focused support is needed to help us increase the success rates of more of our students. The center will need to increase in size and changes will be needed in its configuration to help us meet our new goals. A well laid out math study center could be a focal point of a new math building, a place where students enjoy coming to and can always find the help they need.

The third big concern is the need to narrow the range of our success rates in each class and to hopefully increase them as well. We believe that this problem must be discussed with the entire mathematics department, both fulltime and adjunct. We also believe that it will take a sustained and focused effort to begin the process of change. One of our goals is to have a summer "retreat" for the lack of a better name that will allow us time as a large group to brainstorm and chart a new course of action.

11.3 Make a rank-ordered list of program recommendations. These recommendations should be clearly based on the information included in Sections 1 through 11 of this document. You may include recommendations that do not require additional fiscal resources.

1. Build a beautiful new mathematics building with classrooms designed for teaching mathematics, ample office space including space for our large contingent of adjunct faculty, increase the size and improve the design of the Math Study Center and a reception area where students can receive information about our mathematical programs.
2. Hire three more full-time faculty to be at roughly 60% of our total FTEF.
3. Improve student success in two ways:
   (1) Decrease the variability of the success rates in each of our courses.
   (2) Increase the average success rate in each of our courses.
4. Increase the number of math degrees awarded.
5. Increase the math program completion rates for all levels of math students.
6. Keep up with current technology for teaching and learning.
7. Improve our department's interaction with counseling and student support services.
8. Improve the process of correctly placing our students in math classes.

Appendix 1

The Six-Year Unit Plan

Six-Year Department/Unit Plan

Department/Unit Name Mathematics   Month/Year 10/30/09

Instructions:

This Six-Year Unit Plan details the goals that you have for your department/unit in a number of areas, as well as the strategies that you plan to implement to achieve those goals. Each year, this plan will inform and be implemented through the activities in your various annual action plans. In addition, this plan is organized so that the work eventually accomplished in the areas listed can be used to complete key sections of your next program review document.

Please fill out all portions as completely as possible. Some units in student and administrative services will need to indicate where the sections do not apply.

THE DEADLINE FOR SUBMITTING THIS COMPLETED SIX-YEAR DEPARTMENT/UNIT PLAN TO YOUR DEAN IS FRIDAY, NOVEMBER 6th, 2009.

Remember, for your Six-Year Plan, you are developing your department/unit goals and strategies (activities) for each of the areas listed as plan sections on the following pages. Your goals and activities may support one or more of the following College Strategic Planning Priority Goals that are provided here for your reference:

Student Access
- **Goal 1:** Better serve students in historically under-served populations
- **Goal 2:** Respond to changing community needs

Learning and Student Success
- **Goal 3:** Provide an Exceptional Learning Environment to Promote Student Success
- **Goal 4:** Promote Student Success for Historically Under-served Populations
- **Goal 5:** Promote Student Success for Historically Under-prepared Populations

Robust Fiscal and Physical Resources
- **Goal 6:** Promote Institutional Effectiveness
- **Goal 7:** Develop and maintain an exceptional learning environment
- **Goal 8:** Maximize Revenue from Traditional and Non-Traditional Sources

Economic and Community Development
- **Goal 9:** Enhance Workforce Preparedness
- **Goal 10:** Develop Innovative Partnerships That Meet Long-term Community Needs

Value and Support of Employees
- **Goal 11:** Promote Employee Success

BACKGROUND

A. Please provide a list of your most recent program review recommendations.
1. Replace full-time faculty as they separate and hire 3 additional full-time faculty.
2. Pursue the allocation of 0.35 LED for a faculty coordinator for the Math Study Center.
3. Secure at least $100,000 annually to staff the Math Study Center.
4. Acquire funds to support mentoring new faculty and conference attendence.
5. Create plan for maintaining and upgrading technology.
6. Assess, clarify and support the role of the course coordinators to ensure department consistency.
7. Create department data committee to research program trends and evaluate strength and weaknesses for program improvement.

8. Establish an implementation plan and review process for existing department policies and procedures and continue development.
9. Collaboratively write student-learning outcomes and collectively agree upon their assessment methods to be written in course syllabi. Use student-learning outcome data for continued course and program improvement.
10. Using the Course History Information Report, continue to submit curriculum modification proposals for those courses that have not been reviewed by the Curriculum Committee in more than four years or curriculum deletion forms for those courses that have not been offered in the last three years.

B. If applicable, please provide a list of any advisory committee recommendations.
NA

C. If applicable, please provide a list of any certification/accreditation recommendations.
NA

PLAN SECTIONS

In each section, answer the questions as completely as possible. **Remember that you are discussing long-term plans for the next six years.**

D. Community Outreach/Response

1. What is/are your six-year goal(s) in this area?

   Math Goal #1: Continue and enhance communication/ties with area schools- middle schools, high schools, 4-year universities.

   Math Goal #2: Explore connections with area industries with a mathematical emphasis.
   Math Goal #3: Increase the number of mathematics majors and students interested in becoming math teachers.

   Briefly explain:

   a. why each 6-year plan goal was chosen (include any supporting data)
      Math Goal #1: Continuity of education is important for student success. Through our involvement in the CalPASS East County Mathematics Committee, our department will continue to collaborate and share data on success and standards in basic mathematics through calculus.
      Math Goal #2: The department continues to encourage students to extend their studies in mathematics. By building relationships with local science and math related employers, we hope to entice more students to get an AS in mathematics.
      Math Goal #3: There is a need for more mathematics majors in the state and nation as well as more math teachers for middle and high schools.

   b. how each 6-year plan goal above supports the college strategic planning priority goals
      Math Goal #1: Strategic Plan Strategy #3.3, 5.1, 5.2, 5.4
      Math Goal #2: Strategic Plan Strategy #3.3, 3.5, 10.2, 10.3
      Math Goal #3: Strategic Plan Strategy #3.2, 3.3, 3.4, 3.5, 3.6, 9.1, 9.2, 9.3, 10.3,

2. What strategies/activities would you undertake to accomplish each 6-year plan goal?
   Participation in CalPASS East County Mathematics Committee, GUHSD Math Council, Greater San Diego Math Council PLC, build outreach programs with area schools to transition new students to college (First Year Experience, etc)
   Invite area industry leaders with mathematical background to speak at a mathematics symposium.
   Monitor the number of students participating in the new Math 177 class and Math 299 class (Problem Solving for Math Students).
   Work with counselors and math faculty to spread the word about transfer options and grants for students majoring in mathematics.

3. How will you demonstrate that you have accomplished each 6-year plan goal (be sure to include how data will be collected/assessed)?
   We will look back and see if we have increased our outreach with the community (schools and industry).
   We will track the number of students awarded math degrees -- both associates and bachelor's from SDSU and UCSD.

We will track the number of students enrolled in Math 177 and, of those, the number who major in some kind of math/math education.

E. Student Success and Support
   1. What is/are your six-year goal(s) in this area?
      Math Goal #4: Increase student success in developmental mathematics (Math 080 – 097)

   Briefly explain:
   a. why each 6-year plan goal was chosen (include any supporting data)
      Improvement in success rates in developmental math has always been a priority for our department. The Basic Skills Initiative has in recent years exploded interest and increased funding for California Community colleges. Approximately 70% of all incoming students assess into a basic skills course. Success rates for basic skills students are abysmal across the state and in the district.

   b. how each 6-year plan goal above supports the college strategic planning priority goals
      Math Goal #4: Strategic Plan Strategy #1.2, 3.1, 3.4, 3.5, 3.6, 3.7, 4.1, 5.2, 5.3, 5.4, 7.3, 11.1

   2. What strategies/activities would you undertake to accomplish each 6-year plan goal?
      Assess the MDTP assessment test.
      Increase BSI students' attendence in the Math Study Center.
      Recruit and train Developmental Math Tutors for Tutor Center and classroom/supplemental instruction.
      Expand the Math Study Center to include a dedicated Developmental Math area.
      Add an additional section of the "Math Academy".
      Create online videos of basic skill concepts in math.
      Create online videos to help students with using and incorporating technology to solve problems.
      Encourage full time math faculty to teach at least one developmental math course each year.
      Offer staff development workshops (or possibly a one day retreat) for developmental math instructors to share best practices, train instructors on how to use tutors in the classroom, share resources, etc.

   3. How will you demonstrate that you have accomplished each 6-year plan goal (be sure to include how data will be collected/assessed)?
      Analyze Success, Retention, and Persistence data on basic skills courses. Institutional research studies will be requested. Analyze MSC usage (for increase) and any correlation with student success. Breakdowns by under-served and under-prepared populations. The existence of a developmental tutoring area. Analysis of website access counters of online resource/video sites.

F. Department/Unit Resources and Development
   1. What is/are your six-year goal(s) in this area?
      Math Goal #5: Centralize and increase the facilities of the mathematics program . This would include space for large, well thought-out, technologically updated math classrooms, an expanded

math study center to include a Basic Skills tutoring area, math faculty offices and math computer lab space.

Briefly explain:

a. why each 6-year plan goal was chosen (include any supporting data)
   The mathematics dept offers about 175 sections each semester and is the largest WSCH earner in the district. Math earned 43,753.75 WSCH in 2007-2008 (11.6% of all Grossmont WSCH). Math classes are taught in 10 "math classrooms" and about 21 other classrooms sprayed across the campus. Math also has one of the highest efficiency rates on campus, due to high fill rates in our classes. Math averages 1110 WSCH/FTEF per year, well above the college average of 867 WSCH/FTEF.

b. how each 6-year plan goal above supports the college strategic planning priority goals
   Math Goal #5: Strategic Plan Strategy #3.1, 3.7, 7.1, 7.2, 7.3,

2. What strategies/activities would you undertake to accomplish each 6-year plan goal?
   Form a Math Facilities committee to plan and advocate for math classrooms, lab space, math offices, etc. (putting offices/math lab/classrooms in one building or in close proximity to each other).
   Ensure math department participation in campus facilities planning.
   Ensure math dept representation on any 300-North (Bldg 36) or 300-South (Bldg 31) facilities taskforces or secondary effects committees.
   Expand the Math Study Center to include a dedicated Developmental Math area.
   Expand the Math Study Center to serve more students.
   Expand computer lab space to include a statistics lab.

3. How will you demonstrate that you have accomplished each 6-year plan goal (be sure to include how data will be collected/assessed)?
   A survey of space usage on the campus map will show that we have centralized and)anded the math program.

<u>Faculty/Staff Professional Development</u>

1. What is/are your six-year goal(s) in this area?
   Math Goal #6: Encourage and increase math faculty participation at professional conferences and on campus professional development workshops.
   Math Goal #7: Encourage and increase math faculty participation in college and district level committees, taskforces, and leadership positions.

Briefly explain:

a. why each 6-year plan goal was chosen (include any supporting data)
   Attendence at professional conferences leads to better teaching and learning. Faculty bring back new activities and ideas to share and energize fellow faculty colleagues. Participation in conferences keeps us up to date with current technologies and best practice teaching strategies in our field.
   Service to the college and department representation is vital to the growth and success of the mathematics program.

b. how each 6-year plan goal above supports the college strategic planning priority goals
   Math Goal #6: Strategic Plan Strategy #11.4

Math Goal #7: Strategic Plan Strategy #11.3, 11.4

2. What strategies/activities would you undertake to accomplish each 6-year plan goal?
   Attend professional conferences.
   Organize on campus workshops and training.
   Participate in college and district level committees, taskforces and leadership positions.
   Create online videos/resources for adjunct faculty.
   Increase outreach to faculty with resource materials through the course coordinator (using a blackboard container for each course).
   Dedicate a percentage of the math budget to travel/conference attendance.

3. How will you demonstrate that you have accomplished each 6-year plan goal (be sure to include how data will be collected/assessed)?
   Records of Attendence at professional conferences and on campus workshop/training offerings. Analyze the annual participation on committees, taskforces and in leadership positions.

H. <u>Curriculum Development</u>

1. What is/are your six-year goal(s) in this area?
   Math Goal #8: Continue to monitor, adjust and increase curriculum in the mathematics program.

Briefly explain:

a. why each 6-year plan goal was chosen (include any supporting data)
   The math department continues to update and improve math offerings to fit current academic standards and needs.

b. how each 6-year plan goal above supports the college strategic planning priority goals
   Math Goal #8: Strategic Plan Strategy #3.3, 3.4, 3.5, 3.6, 3.7, 5.4

2. What strategies/activities would you undertake to accomplish each 6-year plan goal?
   Increase Math 160: Elementary Statistics from a 3-unit course to a 4-unit course.
   Explore and develop an undergraduate History of Mathematics course.
   Continue and refine the development of online math courses to make education more accessible to members of the community.
   Continue to improve the online videos for how to use the TI-84 in Statistics.
   Investigate the software used in Math 150 (MATLAB).
   Monitor the number of students participating in the new Math 177 class and Math 299 class (Problem Solving for Math Students).
   Create online videos of basic skill concepts in math.

3. How will you demonstrate that you have accomplished each 6-year plan goal (be sure to include how data will be collected/assessed)?
   Successful completion and acceptance by curriculum committee.
   Success rates will be tracked.

I. Staffing Needs

1. Please explain your projected needs for staffing (include data to support your needs)?
Math Goal #9: Retain 21 full-time tenure track faculty in order to increase the full-time to part-time ratio in the math department. This would require the hiring of 2 replacement and 2 new full-time tenured track faculty.

   The math department at Grossmont College is the #1 WSCH earner in the district. The department generated 43,753.75 WSCH during 2007-2008, equal to 11.6% of the college's WSCH. Math has one of the highest WSCH per FTEF (efficiency) ratios in the District. Math serves 1110 WSCH/FTEF per year on average, well above the average of campus dept/programs at 867 WSCH/FTEF. According to the 2007-2008 FT/ PT/ Extra Pay FTE analysis, only 35% of the courses in the math department are taught by full-time faculty as part of load. The mathematics department currently hovers around 42 FTEF. For full-time faculty to carry at least 50% of the teaching load, the math department would need to have 21 full-time positions. We currently have 17 full-time faculty members so we need at least 4 additional FT faculty members. It is extremely important that the ratio of full-time to part-time instructors be kept high to maintain the integrity of the department.

J. Student Outcomes
If you are in an instructional area and have not done so already, complete your six-year student outcome assessment plan by going to http://www.grossmont.edu/student_learning_outcomes/SLO%20Spreadsheet%20home.htm, clicking on your department link, and completing the spreadsheet. **NOTE: the student outcome plan spreadsheet was due online by October 2nd.**

THE DEADLINE FOR SUBMITTING THIS COMPLETED SIX-YEAR DEPARTMENT/UNIT PLAN TO YOUR DEAN IS FRIDAY, NOVEMBER 6th, 2009.

Appendix 2

Catalog Descriptions

Mathematics (math)

Course eligibility is required of all students prior to enrolling in any math course. Course eligibility is obtained by one of the following:

a. Satisfactorily completing all prerequisite courses.
b. Taking a math assessment to determine current math skills.
c. Obtaining a math waiver form from the Counseling Center.
d. Present college transcripts to the counseling staff showing satisfactory completion of equivalent prerequisite courses. When possible, bring a course description to assist in determining course equivalency. Students with transcripts from foreign colleges should contact the Mathematics Department or the Counseling Center.

Mathematics 080 ++
Basic Mathematics
2 units, 2 hours lecture
Fundamentals of arithmetic including addition, subtraction, multiplication, and division are reviewed with stress placed upon mental arithmetic involving whole numbers. Operations with fractions, decimals and percent are stressed. This course is offered on a Pass/ No Pass only. (Nondegree credit course)

Mathematics 087 ++
Strategies for Success in Math 080 – Math 090
1 unit, 1 hour lecture
An introduction to strategies to improve success in math courses. Included in the course are test taking strategies, techniques to deal with math anxiety, textbook reading skills, ways to improve note taking and memory, and effective homework practices. Students will identify various aspects of their learning style and use the information to develop study strategies that are appropriate for a math course. This course may be taken prior to taking a math class or concurrently with Math 080, 088, 089 or 090. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 088 ++
Pre-Algebra
4 units, 4 hours lecture
This course covers the derivation and use of selected measurement concepts; and the development of pre-algebra ideas such as variable, signed numbers and equations. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 088L ++
Computer Tutorial Review for Pre-Algebra
1 unit, 3 hours laboratory
This course uses a variety of educational tools to assist students. It could be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while enrolled in a basic mathematics or pre-algebra course. Educational tools include computer-aided tutorials, drills, and problem sets. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 089 ++
Pre-Algebra for the Math Anxious
5 units, 5 hours lecture
This course will teach students to overcome mathematics anxiety and prepare them for elementary algebra. Emphasis in the course will be on developing self confidence through successfully solving arithmetic, algebraic and geometric problems. Students will learn effective skills, including cooperative learning and test taking techniques. A variety of nontraditional materials and techniques will be used in the presentation of concepts. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 090 ++
Elementary Algebra
5 units, 5 hours lecture, or 4 hours lecture plus 2 hours computer assisted instruction (4.5 hours lecture and 1.5 hours laboratory)
Vocabulary of algebra, translation from English to algebra and evaluation of literal expressions. An introduction to the basic properties of the integers, rational numbers, and real numbers; polynomials, rational expressions, integral exponents, and radicals; simple functions and relations, graphing, solving linear equations and inequalities, linear systems, and second degree equations. Recommended for students with little or no recent knowledge of algebra. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 090L ++
Computer Tutorial Review for Elementary Algebra
1 unit, 3 hours laboratory
This course uses a variety of educational tools to assist students. It could be used to strengthen prerequisite skills prior to enrolling in a specific course or to receive supplemental assistance while enrolled in an elementary algebra course. Educational tools include computer-aided tutorials, drills, and problem sets. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 097 ++
Plane Geometry
3 units, 3 hours lecture
Prerequisite: *A "Pass" grade in MATH 090 or equivalent.*
This course introduces essential vocabulary, properties and characteristics of geometric objects and geometric constructions. The concepts of plane geometry are developed inductively and then deductively. Integrated computer instruction offers a dynamic presentation of geometric concepts. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 103 +
Intermediate Algebra
3 units, 3 hours lecture
Prerequisite: *A "Pass" grade in MATH 090 or equivalent.*
Graphic, numeric, analytic and applied problems on topics including linear, quadratic, exponential and logarithmic functions, exponents, and radicals. Additional topics include systems of equations, algebraic fractions, radicals, mathematical sentences involving inequalities and absolute value, and complex numbers. A student can earn a maximum of 5 units for taking MATH 103 and MATH 110.
Satisfies General Education for Grossmont College A3

Mathematics 110 +
Intermediate Algebra for Business, Math, Science and Engineering Majors
5 units, 5 hours lecture or 4 hours lecture plus 2 hours computer assisted instruction (4.5 hours lecture and 1.5 hours laboratory)
Prerequisite: *A "Pass" grade in MATH 090 or equivalent.*
Application of graphic, numeric, and analytic methods to model, interpret, and solve real-world problems involving: linear, quadratic, rational, radical, exponential, and logarithmic functions; systems of linear and quadratic equations or inequalities; and absolute value equations or inequalities. Interpret, model and analyze a collection of data and/or application problems. Additional topics include conic sections and an introduction to matrices and determinants. Computational techniques developed in beginning algebra are prerequisite skills for this course. This course is appropriate for students with a knowledge of beginning algebra or who have had at least two years of high school algebra but have not used it for several years. A student can earn a maximum of 5 units for taking MATH 103 and MATH 110.
Satisfies General Education for Grossmont College A3

Mathematics 110L ++
Computer Tutorial Review for Intermediate Algebra
1 unit, 3 hours laboratory
This course is designed for students who wish to review and master previously completed coursework. It should be taken to help strengthen concepts needed for the next course. This course consists of computer-aided tutorials, drills, and problem sets for the purpose of helping the student master the concepts of intermediate algebra. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 120 +
Mathematics for General Education
3 units, 3 hours lecture
Prerequisite: *A "C" grade or higher or "Pass" in MATH 103 or 110 or equivalent.*
Designed to give a brief survey at skills level of the historical development and current application of such topics as algebra and analysis, logic, geometry, probability and statistics, graphs, and computers.
Satisfies General Education for: Grossmont College A3; CSU B4, IGETC 2A
Transfers to: CSU, UC (credit limited see page @)

Mathematics 125 +
Structure and Concepts of Elementary Mathematics I
3 units, 3 hours lecture, 1 hour laboratory
Prerequisite: *A "C" grade or higher or "Pass" in MATH 103 or 110 AND MATH 097, or equivalent.*
Blending the mathematical topics of sets, whole numbers, numeration, number theory, integers, rational and irrational numbers, measurement, relations, functions and logic. The course will investigate the interrelationships of the above topics using a problem-solving approach. The course will also investigate appropriate use of technology in the classroom.
Satisfies General Education for: Grossmont College A3; CSU B4, IGETC 2A
Transfers to: CSU, UC (credit limited: see page @)

Mathematics 126 +
Structure and Concepts of Elementary Mathematics II
3 units, 3 hours lecture, 1 hour laboratory
Prerequisite: *A "C" grade or higher or "Pass" in Math 125 or equivalent.*
Blending the mathematical topics of probability, statistics, relations, graphs, measurement, coordinate geometry, plane geometry, solid geometry, logic, and number sense. The course will investigate the interrelationships of the above topics using a problem-solving approach. The course will also investigate the appropriate use of technology in the classroom..
Satisfies General Education for: Grossmont College A3; CSU B4, IGETC 2A
Transfers to: CSU, UC (credit limited: see page @)

Mathematics 128 +
Children's Mathematical Thinking
1.5 units, 1.5 hours lecture
Corequisite: *MATH 125.*
An in-depth analyses of children's mathematical thinking and understanding of operations (addition, subtraction, multiplication, and division), place value and fractions. Students will observe individual children solving mathematical problems.
Transfers to CSU

Mathematics 150 +
Introduction to Computer Programming Applications in Mathematics
3 units, 3 hours lecture
Prerequisite: *A "C" grade or higher or "Pass" in Math 110 or equivalent.*
Use of computers to analyze mathematical application problems and their solutions from statistics, engineering and the physical sciences. Fundamentals of structured technical programming including language commands and computational algorithms.
Satisfies General Education for: Grossmont College A3
Transfers to: CSU, UC

Mathematics 160 +
Elementary Statistics
3 units, 3 hours lecture
Prerequisite: *A "C" grade or higher in MATH 103 or 110 or equivalent.*
This course provides an introduction to descriptive statistics, probability theory and inferential statistics. Topics include data collection; summary and graphical displays of data; measures of central tendency and variability; elementary probability theory; standard procedures involving the normal, binomial, student's t, chi-square, and F distributions; confidence intervals and hypothesis testing; nonparametric statistics; linear correlation and regression. Students will learn to use a graphing calculator and/or statistical software. Applications come from various fields such as biology, business, economics, education, engineering, demography and psychology.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC (credit limited: see page @)

Mathematics 160L ++
Computer Tutorial for Elementary Statistics
1 unit, 3 hours laboratory
This course consists of computer-aided tutorials, drills, and problem sets for the purpose of helping the student master the concepts of statistics. This course is offered on a Pass/ No Pass basis only. (Nondegree credit course)

Mathematics 170 +
Analytic Trigonometry
3 units, 3 hours lecture
Prerequisite: *A "Pass" grade in MATH 097 or equivalent and a "C" grade or higher in MATH 110 or equivalent. Note: MATH 103 is not equivalent to MATH 110.*
A theoretical approach to the study of the trigonometric functions with emphasis upon circular functions, trigonometric identities, trigonometric equations, graphical methods, inverse functions, vectors and applications, complex numbers and solving triangles with applications.
Satisfies General Education for: Grossmont College A3; CSU B4
Transfers to CSU

Mathematics 175 +
College Algebra
4 units, 4 hours lecture
Prerequisite: *A "C" grade or higher in MATH 110 or equivalent. Note: MATH 103 is not equivalent to MATH 110.*
Graphic, numeric, and analytic approaches to the study of precalculus concepts from college algebra. Application of appropriate technology including but not limited to graphic utilities to model, analyze, and interpret a collection of data or to solve real-world application problems from a wide variety of disciplines. Topics include the real number system; algebraic, exponential, and logarithmic functions and their inverses; graphing techniques for polynomial and rational functions; complex numbers; theory of equations; partial fractions; mathematical induction; sequences and series; matrices; and the binomial theorem. A student can receive credit for only MATH 170 and 175, or MATH 176.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC (credit limited: see page @)

Mathematics 176 +
Precalculus: Functions and Graphs
6 units, 6 hours lecture
Prerequisite: *A "C" grade or higher in MATH 110 or equivalent and MATH 097 or equivalent. (MATH 103 is not equivalent to MATH 110.)*
Unification of college algebra and analytical trigonometry based on the function concept. Topics include properties of real number system, inequalities, theory or equations, complex numbers, the study of functions including inverse functions, logarithmic and exponential functions, trigonometric functions with emphasis on circular functions, trigonometric identities, trigonometric equations, graphical methods and solving triangles with applications, matrices, binomial theorem, mathematical induction, sequences and series. Completion of the Matriculation Process is highly recommended. Completion of college algebra or trigonometry will enhance the student's preparation for this course. A student can earn a maximum of 6 units when taking MATH 170, 175, and 176.
Satisfies General Education for: Grossmont College A3; CSU B4, IGETC 2A
Transfers to: CSU, UC (credit limited: see page @)

Mathematics 177 +
Introduction to Teaching Secondary Mathematics
3 units, 2 hours lecture, 3 hours laboratory
Prerequisite: *A "C" grade or higher or "Pass" in Math 175 or equivalent.*
Introduction to the teaching and learning of mathematics in secondary school classrooms. Designed for students with an interest/background in mathematics particularly those who may consider teaching mathematics as a career. The course includes seminar work with mathematical problems as well as discussions on assessment and methodology used in the secondary school environment. It includes on –site field experience in secondary schools with a mentor teacher, as a service learning component, and provides students with insight to a secondary school teaching career in mathematics. The course will be designed to allow students to address a variety of learning modalities by observation in the field and discussing learning approaches through their own mathematical problem solving experiences.
Transfer to: CSU, UC

Mathematics 178 +
Calculus for Business, Social and Behavioral Sciences
4 units, 4 hours lecture
Prerequisite: *A "C" grade or higher in MATH 110 or equivalent. Note: MATH 103 is not equivalent to MATH 110.*
Recommended Preparation: *MATH 175.*
An introduction to matrix algebra, differential and integral calculus with applications specifically designed for business, social and behavioral sciences. Not open to students with credit in MATH 180.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC (credit limited: see page @)

Mathematics 180 +
Analytic Geometry and Calculus I
5 units, 5 hours lecture
Prerequisite: *A "C" grade or higher in MATH 170 and 175 or MATH 176 or equivalent.*
MATH 180 includes topics from analytic plane geometry, limits and continuity of function, differential and integral calculus with applications involving algebraic, exponential, logarithmic, trigonometric, and hyperbolic functions.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC (credit limited: see page @)

Mathematics 199
Special Studies or Projects in Mathematics
1-5 units, 3-15 hours
Prerequisite: *Consent of instructor.*
Individual study, research or projects in the field of mathematics under instructor guidance. Written reports and periodic conferences required. Content and unit credit to be determined by student/instructor conferences and/or division. May be repeated for a maximum of six units.

Mathematics 245 +
Discrete Math
3 units, 3 hours lecture
Prerequisite: *A "C" grade or higher or "Pass" in MATH 280 or equivalent(required by four-year schools).*
Introduction to discrete mathematics. Topics to include sets, relations, summations, elementary counting techniques, recurrence relations, logic and proofs. This course is appropriate for mathematics and computer science majors.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC

Mathematics 280 +
Analytic Geometry and Calculus II
4 units, 4 hours lecture
Prerequisite: *A "C" grade or higher or "Pass" in MATH 180 or equivalent.*
Continuation of MATH 180. Parametric equations, polar coordinates, hyperbolic functions, techniques of integration, indeterminate forms, infinite series, conics.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC

Mathematics 281 +
Intermediate Calculus
4 units, 4 hours lecture
Prerequisite: *A "C" grade or higher or "Pass" in MATH 280 or equivalent.*
Sequel to MATH 280. Includes vectors in two and three dimensions, partial differentiation, iterated integration, line and surface integrals, application of Green's and Stokes' theorems, work with cylindrical and spherical coordinates and an introduction to linear algebra.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC

Mathematics 284 +
Linear Algebra
3 units, 3 hours lecture
Prerequisite: *A "C" grade or higher or "Pass" in MATH 280 or equivalent.*
The central topics are matrix operations, Gaussian elimination, determinants, vectorspaces, linear transformations, orthogonality, eigenvalues and eigenvectors.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC

Mathematics 285 +
Differential Equations
3 units, 3 hours lecture
Prerequisite: *A "C" grade or higher or "Pass" in MATH 280 or equivalent.*
Includes first order differential equations, initial boundary value problems, the Cauchy-Euler equation, series solutions, Laplace transformations, Fourier Series, and separation of variables for elementary partial differential equations. Applications of these topics will be explored.
Satisfies General Education for: Grossmont College A3; CSU B4; IGETC 2A
Transfers to: CSU, UC

Mathematics 298 ++
Selected Topics in Mathematics
1-5 units, 3-15 hours
Prerequisite: *Varies with topic.*
Selected topics in mathematics not covered by regular catalog offerings. Course content and unit credit to be determined by the Division of Mathematics, Natural Sciences, and Exercise Science and Wellness in relation to community/student need(s) and/or available staff. May be offered as a seminar or lecture class. Pass/ No Pass only.
Non-associate degree applicable

Mathematics 299A +
Selected Topics in Mathematics
1-5 units, 3-15 hours
Prerequisite: *Varies with topic.*
Selected topics in mathematics not covered by regular catalog offerings. Course content and unit credit to be determined by the Division of Mathematics, Natural Sciences, and Exercise Science and Wellness in relation to community/student need(s) and/or available staff. May be offered as a seminar or lecture class.
Associate degree applicable

Mathematics 299B +
Selected Topics in Mathematics
1-5 units, 3-15 hours
Prerequisite: *Varies with topic.*
Selected topics in mathematics not covered by regular catalog offerings. Course content and unit credit to be determined by the Division of Mathematics, Natural Sciences, and Exercise Science and Wellness in relation to community/student need(s) and/or available staff. May be offered as a seminar or lecture class.
Baccalaureate level – CSU transfer

Mathematics

The mathematics major offers a foundation for further study in mathematics and other mathematics-related fields. The emphasis of the program is to prepare the students for transfer to four-year institutions.

Career Opportunities

Accountant*
Budget Analyst*
Data Processing Manager
Department Head, College*
Economist*
Financial Planner*
Insurance Agent/Broker+
Loan Officer
Management Trainee
Market Research Analyst*
Mathematician*
Securities Trader*
Statistician*
Surveyor

*Bachelor's Degree or higher required.
+Bachelor Degree normally recommended.

The Program-level Student Learning Outcomes (PSLOs) below are outcomes that students will achieve after completing specific degree/certificate requirements in this program. Students will:

1. Use appropriate theorems, formulas, and algorithms to solve mathematical problems from algebra, trigonometry, calculus and geometry.
2. Use appropriate technology to solve problems requiring mathematics.
3. Formulate, analyze, and differentiate mathematical functions numerically, graphically and symbolically and transition between these representations.
4. Communicate the mathematical process and assess the validity of the solution.

Associate Degree Major Requirements

Note: All courses in the major must be completed with a letter grade of "C" or higher.

Subject & Number	**Title**	**Units**
Mathematics 180	Analytic Geometry & Calculus I	5
Mathematics 280	Analytic Geometry & Calculus II	4
Mathematics 281	Intermediate Calculus	4
Mathematics 284	Linear Algebra	3
	Total	16

Select ONE (1) of the following courses:

Subject & Number	**Title**	**Units**
Mathematics 245	Discrete Math	3
Mathematics 285	Differential Equations	3
	Total	3

Select ONE (1) of the following courses:

Subject & Number	**Title**	**Units**
Mathematics 150	Introduction to Computer Programming Applications in Mathematics	3
Mathematics 160	Elementary Statistics	3
Mathematics 175	College Algebra	4
Mathematics 176	Precalculus: Functions and Graphs	6
Philosophy 130	Logic	3
	Total	3-6
	Total Required	22-25
	Plus General Education and Elective Requirements	

Appendix 3

Grade Distribution Summary

Grade Distribution Summary by Course

% SUCCESS – Percent of enrollment who earned a grade of A, B, C, or Pass in a course.

% NO SUCCESS – Percent of enrollment who earned a D, F, or No Pass.

% W – Percent of enrollment who withdrew from a course.

ENROLLMENT – Number of students enrolled in a course after the first census.

MATH 80	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	42.2	57.4	52.8	53.3	44.2	40.5	66.7	25.0	42.9	55.8	36.4	57.6
% NO SUCCESS	20.0	21.3	27.8	20.0	32.6	33.3	15.7	31.0	40.7	17.9	36.4	14.1
% W	37.8	21.3	19.4	26.7	23.3	26.2	17.6	44.0	16.5	26.3	27.3	28.3
ENROLLMENT	45	47	36	30	43	42	51	84	91	95	88	92

MATH 87	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	54.5	70.0		66.7	35.7	40.0						
% NO SUCCESS	4.5	10.0		0.0	50.0	20.0						
% W	40.9	20.0		33.3	14.3	40.0						
ENROLLMENT	22	10		6	14	5						

MATH 88	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	49.8	47.8	51.8	46.7	43.5	47.7	44.7	51.2	62.0	59.3	75.6	68.5
% NO SUCCESS	23.8	19.7	18.5	17.5	25.0	22.7	26.6	28.4	20.9	23.6	13.9	17.3
% W	26.5	32.5	29.7	35.8	31.5	29.6	28.6	20.4	17.1	17.1	10.5	14.2
ENROLLMENT	223	203	195	212	200	216	199	211	258	246	295	254

MATH 89	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	43.3	66.7	66.7	62.5	66.7	73.7	40.0					
% NO SUCCESS	20.0	18.5	22.2	0.0	22.2	5.3	48.0					
% W	36.7	14.8	11.1	37.5	11.1	21.1	12.0					
ENROLLMENT	30	27	18	16	18	19	25					

MATH 90	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	45.5	45.5	44.6	45.3	38.0	40.8	44.8	43.2	48.9	48.6	51.4	56.6
% NO SUCCESS	27.6	20.9	27.0	19.5	29.5	25.3	31.1	30.0	29.3	33.8	25.9	23.0
% W	26.9	33.6	28.3	35.2	32.5	33.8	24.1	26.8	21.8	17.7	22.6	20.3
ENROLLMENT	804	651	858	676	816	715	872	690	981	844	910	865

MATH 97	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	43.9	36.7	67.4	64.3	73.0	47.2	54.5	63.0	60.9	40.6	56.8	53.8
% NO SUCCESS	26.8	36.7	21.7	14.3	2.7	22.2	27.3	17.4	13.0	37.5	29.5	28.2
% W	29.3	26.7	10.9	21.4	24.3	30.6	18.2	19.6	26.1	21.9	13.6	17.9
ENROLLMENT	41	30	46	28	37	36	33	46	46	32	44	39

MATH 103	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	55.6	54.2	48.9	51.4	49.3	51.7	55.3	56.0	56.4	51.6	57.5	53.6
% NO SUCCESS	21.0	18.9	24.5	20.1	23.9	17.5	23.0	23.3	24.2	27.7	23.4	25.2
% W	23.4	26.8	26.6	28.5	26.7	30.8	21.7	20.7	19.4	20.7	19.1	21.2
ENROLLMENT	901	824	884	856	973	878	969	864	972	870	988	826

MATH 110	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	40.5	40.7	43.4	43.4	44.3	41.6	44.9	45.8	45.3	50.4	49.1	49.1
% NO SUCCESS	29.0	27.7	23.4	26.0	26.5	26.7	24.2	22.5	29.2	27.4	30.9	27.0
% W	30.5	31.6	33.2	30.6	29.2	31.7	30.9	31.7	25.4	22.2	19.9	23.9
ENROLLMENT	758	573	726	581	797	666	862	666	865	720	879	741

MATH 120	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	68.0	73.5	76.9	66.3	66.7	68.6	63.9	71.1	68.4	70.3	75.8	67.5
% NO SUCCESS	15.4	10.6	7.5	12.5	20.5	12.7	19.8	16.4	17.1	15.9	13.7	16.5
% W	16.6	15.9	15.6	21.2	12.8	18.7	16.3	12.6	14.5	13.9	10.6	16.0
ENROLLMENT	338	358	359	359	336	411	338	422	414	397	417	418

MATH 125	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	57.3	66.0	48.1	56.3	58.9	55.0	70.2	62.5	65.3	64.5	52.2	67.5
% NO SUCCESS	25.3	24.0	29.6	16.7	28.8	28.3	15.5	12.5	24.5	29.0	23.9	22.5
% W	17.3	10.0	22.2	27.1	12.3	16.7	14.3	25.0	10.2	6.5	23.9	10.0
ENROLLMENT	75	50	54	48	73	60	84	56	49	62	46	40

MATH 126	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	65.6	64.1	50.0	48.4	68.2	82.9	64.0	66.7	47.4	73.9	66.7	38.9
% NO SUCCESS	28.1	23.1	7.7	22.6	18.2	11.4	16.0	14.3	26.3	13.0	28.6	38.9
% W	6.3	12.8	42.3	29.0	13.6	5.7	20.0	19.0	26.3	13.0	4.8	22.2
ENROLLMENT	32	39	26	31	22	35	25	42	19	23	21	18

MATH 128	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	87.5	91.2	75.0	62.5	74.3	87.1	70.2	61.5	53.4	63.6	90.0	
% NO SUCCESS	6.3	5.9	6.8	9.4	8.6	3.2	8.5	15.4	10.3	22.7	5.0	
% W	6.3	2.9	18.2	28.1	17.1	9.7	21.3	23.1	36.2	13.6	5.0	
ENROLLMENT	16	34	44	32	35	31	47	52	58	44	20	

MATH 150	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	92.9	91.7	81.8	92.9	78.9	70.0	100.0		81.3			
% NO SUCCESS	0.0	0.0	0.0	7.1	0.0	0.0	0.0		6.3			
% W	7.1	8.3	18.2	0.0	21.1	30.0	0.0		12.5			
ENROLLMENT	14	12	11	14	19	10	10		16			

MATH 160	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	54.3	58.3	52.9	59.0	59.1	58.7	52.8	61.3	56.8	58.8	59.9	58.4
% NO SUCCESS	19.7	17.1	17.5	14.9	16.6	16.5	20.7	15.6	19.4	19.8	18.4	20.1
% W	26.0	24.6	29.6	26.1	24.2	24.9	26.5	23.1	23.8	21.4	21.7	21.5
ENROLLMENT	892	971	852	914	920	1033	918	1113	958	1025	863	965

MATH 170	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	42.1	53.8	39.7	56.7	53.0	53.4	48.3	55.6	49.6	60.4	39.1	52.6
% NO SUCCESS	21.9	18.5	31.9	11.7	20.9	19.8	21.7	12.1	19.1	19.8	32.3	24.1
% W	36.0	27.7	28.4	31.7	26.1	26.7	30.0	32.3	31.3	19.8	28.6	23.4
ENROLLMENT	114	130	116	120	115	116	120	99	131	101	133	137

MATH 175	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	43.1	45.4	44.1	49.8	40.7	43.8	55.8	49.3	51.4	51.1	52.8	46.5
% NO SUCCESS	24.3	19.4	21.2	14.8	27.8	17.8	16.8	22.5	24.3	15.6	22.1	20.0
% W	32.6	35.2	34.7	35.4	31.5	38.5	27.4	28.2	24.3	33.3	25.2	33.5
ENROLLMENT	276	216	288	229	241	208	274	227	247	231	290	260

MATH 176	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	60.0	49.2	53.8	60.5	56.6	45.8	59.3	54.7	51.6	52.2	63.1	46.6
% NO SUCCESS	19.4	17.5	18.1	11.3	20.2	19.0	17.5	20.3	25.3	19.9	20.7	32.6
% W	20.6	33.3	28.1	28.2	23.1	35.2	23.2	25.0	23.1	28.0	16.2	20.7
ENROLLMENT	175	120	160	124	173	142	194	172	182	186	198	193

MATH 178	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	59.8	63.8	64.0	66.8	63.4	58.8	65.8	54.0	64.4	68.8	66.3	70.7
% NO SUCCESS	14.7	10.8	13.4	13.2	18.3	10.6	13.1	15.2	12.6	11.4	11.1	10.3
% W	25.4	25.4	22.5	20.0	18.3	30.6	21.1	30.8	22.9	19.9	22.6	19.0
ENROLLMENT	224	232	253	250	279	245	237	289	253	317	261	263

MATH 180	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	49.3	49.8	49.8	52.3	51.0	47.6	48.6	50.7	61.8	63.2	72.8	57.1
% NO SUCCESS	17.5	19.1	20.4	18.0	22.8	22.8	23.1	26.4	17.4	15.1	9.6	21.0
% W	33.2	31.1	29.7	29.7	26.2	29.6	28.3	22.9	20.8	21.6	17.6	21.8
ENROLLMENT	217	225	269	222	263	250	286	284	327	291	335	238

MATH 245	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	25.0	22.7	61.5	76.0	70.6	0.0	72.2	62.5		22.6	85.7	27.3
% NO SUCCESS	33.3	27.3	15.4	16.0	17.6	8.3	16.7	12.5		9.7	8.6	13.6
% W	41.7	50.0	23.1	8.0	11.8	91.7	11.1	25.0		67.7	5.7	59.1
ENROLLMENT	12	22	13	25	17	12	18	16		31	35	22

MATH 280	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	53.3	54.4	49.3	46.8	53.5	57.3	68.0	65.2	62.0	61.4	69.8	57.9
% NO SUCCESS	14.0	16.9	18.7	14.3	22.5	14.0	13.1	16.1	15.1	13.8	14.6	12.9
% W	32.7	28.7	32.1	39.0	23.9	28.7	19.0	18.6	22.9	24.8	15.6	29.2
ENROLLMENT	150	136	134	154	142	164	153	161	192	210	192	209

MATH 281	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	54.4	65.6	53.3	70.1	56.1	48.3	76.6	52.7	74.7	60.9	69.1	67.3
% NO SUCCESS	23.5	6.3	21.7	14.3	24.2	20.7	12.5	29.0	10.1	20.7	8.2	8.2
% W	22.1	28.1	25.0	15.6	19.7	31.0	10.9	18.3	15.2	18.5	22.7	24.5
ENROLLMENT	68	64	60	77	66	58	64	93	99	92	97	98

MATH 284	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	50.0	68.8	56.8	79.4	66.7	64.5	60.7	88.1	84.0	89.6	37.5	76.1
% NO SUCCESS	29.2	12.5	13.5	14.7	6.7	16.1	14.3	2.4	8.0	4.2	37.5	10.9
% W	20.8	18.8	29.7	5.9	26.7	19.4	25.0	9.5	8.0	6.3	25.0	13.0
ENROLLMENT	24	32	37	34	30	31	28	42	25	48	32	46

MATH 285	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS	69.2	59.1	70.3	61.3	63.4	86.2	66.7	82.1	85.7	89.5	62.0	51.2
% NO SUCCESS	2.6	0.0	5.4	9.7	14.6	3.4	14.8	3.6	0.0	10.5	8.0	24.4
% W	28.2	40.9	24.3	29.0	22.0	10.3	18.5	14.3	14.3	0.0	30.0	24.4
ENROLLMENT	39	22	37	31	41	29	27	28	35	19	50	41

MATH 177	FA.05	SP.06	FA.06	SP.07	FA.07	SP.08	FA.08	SP.09	FA.09	SP.10	FA.10	SP.11
% SUCCESS									84.6	75.0	77.8	71.4
% NO SUCCESS									15.4	5.0	22.2	28.6
% W									0.0	20.0	0.0	0.0
ENROLLMENT									13	20	9	7

Grade Distribution Summary by Section

Fall 2005

MATHEMATICS, NATURAL SCIENCES & PE

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 080 BASIC MATHEMATICS															
5895N	8	4.0							10	4	15	29	25.6	MINOR	PT
5897N	8	4.0							9	5	2	16	25.6	CALLAHAN	PT
COURSE TOTAL									19	9	17	45	51.2		
MATH 087 STRATS SUCCESS IN MATH 080-090															
5899	8	2.0							4		7	11	3.7	HIGGINS	PT
5900	8	2.0							8	1	2	11	8.2	VANDEN-EYNDEN	
COURSE TOTAL									12	1	9	22	11.9		
MATH 088 BASIC MATHEMATICS/PRE-ALGEBRA															
5902		4.0							12	3	9	24	96.0	WORKING	
5903		4.0							14	9	9	32	128.0	DENNEY	PT
5904		4.0							13	3	12	28	112.0	VANDEN-EYNDEN	
5905		4.0							14	7	4	25	100.0	NOBILETTE	PT
5906		4.0							8	7	4	19	76.0	PILIPETS	PT
5907		4.0							13	7	8	28	112.0	VANDEN-EYNDEN	XP
5908		4.0							4	3	2	9	36.0	NOBILETTE	PT
5909N		4.0							19	11	9	39	156.0	KAZZAZI	PT
5910N		4.0							14	3	2	19	76.0	KAISER	PT
COURSE TOTAL									111	53	59	223	892.0		
MATH 088L COMP TUTOR REVIEW/PREALGEBRA															
5911	14	3.4							13	4	13	30	46.2	WORKING	
COURSE TOTAL									13	4	13	30	46.2		
MATH 089 PRE-ALGEBRA FOR MATH ANXIOUS															
5912		5.0							8		1	9	45.0	FUNK	
5914N		5.0							5	6	10	21	105.0	RIDGWAY	PT
COURSE TOTAL									13	6	11	30	150.0		
MATH 090 ELEMENTARY ALGEBRA															
5915		5.0							5	15	15	35	175.0	CHOW	XP
5917		5.0							13	9	10	32	160.0	KOOSHA	PT
5919		5.0							19	15	10	44	220.0	SCHOONOVER	PT
5920		6.0							22	11	7	40	240.0	WORKING	XP
5922		6.0							18	18	5	41	246.0	WORKING	
5924		6.0							16	15	10	41	240.0	WORKING	
5926		6.0							11	17	13	41	246.0	LINES	
5928		6.0							21	6	5	32	192.0	SIBBALD	PT
5930		6.0							4	3	4	11	66.0	ORR	PT
5932		5.0							51	2	3	56	280.0	LAMB	PT
5933		5.0							13	5	17	35	175.0	GORDON	PT
5934		5.0							15	11	15	41	205.0	LINES	XP
5935		5.0							14	8	11	33	165.0	NGUYEN	PT
5936		5.0							26	3	5	34	160.0	CONRAD	PT
5937		5.0							16	15	13	44	220.0	LARIOS	PT
5938N		5.0							10	7	16	33	160.0	LA-PUMA	PT
5939N		5.0							14	13	8	35	175.0	WILLWEBER	PT
5941N		5.0							16	6	10	32	160.0	LANGLEY	
5942N		5.0							13	2	11	26	130.0	LANGLEY	

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 090 ELEMENTARY ALGEBRA (CONT"D)															
5943N		5.0							12	3	11	26	125.0	LANGLEY	PT
5944N		5.0							15	11	12	38	190.0	LIEBERKNECHT	PT
5945N		5.0							22	27	5	54	270.0	SPECKMANN	PT
COURSE TOTAL									366	222	216	804	4200.0		
MATH 090L COMP TUTOR REVIEW/ELEM ALGEBRA															
5946	14	3.4							3	12	4	19	40.8	GILES	
COURSE TOTAL									3	12	4	19	40.8		
MATH 097 PLANE GEOMETRY															
5947		3.0							11	7	8	26	75.0	WALLER	
5948N		3.0							7	4	4	15	45.0	RIDGWAY	PT
COURSE TOTAL									18	11	12	41	120.0		
MATH 103 INTERMEDIATE ALGEBRA															
5950		3.0	4	4	6	3	10				7	34	102.0	YANICH	PT
5951		3.0	6	15	12	2	7				4	46	138.0	EMAMI	PT
5953		3.0	13	13	11	4	9			1	13	64	192.0	KMET	
5954		3.0	6	2	5	2	8				17	40	120.0	MALONEY	PT
5956		3.0	12	5	11	6	3				12	49	144.0	KMET	
5957		3.0	8	11	13	3	5		2	2	15	59	177.0	KMET	
5958		3.0	8	11	14	2	5		1		11	52	156.0	KMET	
5959		3.0	5	2	13	5	8				19	52	153.0	KMET	
5960		3.0	8	11	8	3	6				13	49	147.0	KMET	XP
5961	8	6.0	6	14	4	1	2				2	29	74.1	WALLER	
5962		3.0	7	12	15	5	5				12	56	168.0	KMET	XP
5964		3.0	3	9	6	4	7		3		4	36	108.0	COCHRANE	PT
5965		3.0	26	10	4				1		3	44	132.0	WARD	PT
5966		3.0	11	7	6		5				10	39	117.0	SUNDERMAN	PT
5967		3.0	1	4	4	3	4				13	29	87.0	SCHOONOVER	PT
5968		3.0		2	9	5	2				3	21	63.0	SAFAEE	PT
5969		3.0	2	8	7	6	12				10	45	135.0	LA-PLANT	PT
5970N		3.0	2	5	7		7				6	27	81.0	WINN	PT
5971N		3.0	1	3	7	4	7				14	36	108.0	LIEBERKNECHT	PT
5972N	8	3.0	4	11	5		2		3	1	5	31	35.7	WILLWEBER	PT
5973N		3.0	6	5	8	4	6				13	42	123.0	KAZZAZI	PT
5974N		3.0	3	4	6	1	2				5	21	63.0	WILSON	PT
COURSE TOTAL			142	168	181	63	122		10	4	211	901	2623.8		
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG															
5975		5.0	6	11	9	1	5		2		7	41	205.0	COCHRANE	PT
5976		5.0	1	3	8	3	7			1	19	42	210.0	HOMANN	PT
5978		5.0	6	5	9	6	3				12	41	205.0	SAFAEE	PT
5979		6.0	7	3	3	10	9			1	9	42	252.0	CAPACIA	XP
5982		6.0	5	4	2	3	6				14	34	204.0	CAPACIA	
5983		6.0	7	3	8	3	5		1		9	36	216.0	CAPACIA	
5988		5.0	8	11	4	5	10			2	14	54	270.0	GILES	
5990		5.0	4	5	5	5	5			2	33	59	290.0	SMITH	XP
5991		5.0	3	5	13	10	5		2		10	48	240.0	TARVIN	
5992		5.0	3	7	5	7	13		1		10	46	225.0	TARVIN	

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG (CONT"D)															
5993		5.0	5	8	8	4	10		1		9	45	225.0	MANCHESTER	PT
5994		5.0	18	11	3		5			1	15	53	265.0	WARD	PT
5995N		5.0	5	5	6	3	4		1		11	35	175.0	WILLIAMS	PT
5996N		5.0	4	1	6	5	14			1	9	40	195.0	DAVIS	
5997N		5.0	1	4	5	1	8				12	31	150.0	LAMBE	PT
5998N		5.0	1	1	5	2	16				14	39	195.0	JOHNSON	PT
5999N		5.0	3	7	11	1	4				15	41	205.0	WINN	PT
6000N		6.0	2	3	3	1	13				9	31	180.0	FLOWERS	PT
COURSE TOTAL			89	97	113	70	142		8	8	231	758	3907.0		
MATH 110L COMP TUTOR REVIEW/INTM ALGEBRA															
6001	14	3.4							1	6	5	12	19.0	DAVIS	
COURSE TOTAL									1	6	5	12	19.0		
MATH 120 MATH FOR GENERAL EDUCATION															
6002		3.0	3	6	5				1		1	16	48.0	EMAMI	PT
6003		3.0		1	5	2	3				4	15	45.0	HOMANN	PT
6004		3.0	2	4	5	4	3		1		2	21	63.0	CAPACIA	
6005		3.0	1	11	11	2	4				9	38	114.0	LEE	
6006		3.0	10	10	6	3	4		3		5	41	123.0	MCCANN	PT
6007	8	6.0	6	3	7	2	4				1	23	60.3	WALLER	
6008		3.0	18	12	5						5	40	120.0	CONRAD	PT
6009	8	6.0	8	3	2		2		1		2	18	43.9	WALLER	
6010		3.0	1	4	16	5	4			1	13	44	132.0	LEE	
6011		3.0	7	5	2	1	2				5	22	66.0	ORR	PT
6012N	8	6.0	5	11	9	1	3		1		5	35	82.3	LARIOS	PT
6013N		3.0	3	4	2		2				3	14	42.0	MCNEIL	PT
6015N		3.0	3	5	2						1	11	33.0	TAMANAHA-JUSTE	PT
COURSE TOTAL			67	79	77	20	31		7	1	56	338	972.5		
MATH 125 STRUCTURE/CONCEPTS ELEM MATH I															
6016		4.0	2	3	14	2	11				2	34	136.0	LEE	XP
6017		4.0	3	7	5	2	2				8	27	104.0	PEREIRA	
6018N		4.0	3	2	4		2				3	14	56.0	TAMANAHA-JUSTE	PT
COURSE TOTAL			8	12	23	4	15				13	75	296.0		
MATH 126 STRUCTURE/CONCEPT ELEM MATH II															
6019		4.0	3	4	6	6					1	20	80.0	VILLEGAS	PT
6020		4.0	2	5	1	3					1	12	48.0	VILLEGAS	PT
COURSE TOTAL			5	9	7	9					2	32	128.0		
MATH 128 CHILDREN'S MATHEMATIC THINKING															
6021	8	3.0	11	2	1	1					1	16	20.6	TAMANAHA-JUSTE	PT
COURSE TOTAL			11	2	1	1					1	16	20.6		
MATH 150 INTRO/CMPTR PRGM/FORTRAN															
6022N		3.0	8	3	2						1	14	42.0	MALONEY	PT
COURSE TOTAL			8	3	2						1	14	42.0		

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 160 ELEMENTARY STATISTICS															
6023		3.0	7	19	13	1	6				10	56	165.0	WALLER	
6024		3.0	3	5	7	7	3				16	41	123.0	CHOW	
6025		3.0	1	2	7	4	11				14	39	117.0	CHOW	
6026		3.0	4	1	2	1	1				5	14	39.0	SADEGHIPOUR	PT
6027		3.0	3	4	5	3	8				14	37	108.0	CHOW	
6028		3.0	2	4	4	4	5				20	39	117.0	CHOW	
6029		3.0	9	20	13	4					9	55	165.0	GILES	
6030		3.0	2	7	6		8				16	39	117.0	DAVIS	XP
6031		3.0	13	22	19	1	9				11	75	225.0	CURRAN	PT
6032		3.0	4	4	8	3	7				11	37	111.0	CHOW	
6033		3.0	6	4	3		2			1	2	18	54.0	PALACIOS	
6034	8	6.0	11	15	8	3	10				7	54	128.9	WALLER	XP
6035		3.0	4	7	12	3	3				13	42	126.0	PEREIRA	
6036		3.0	33	18	1		1		1		6	60	180.0	LAMB	PT
6037		3.0	20	5	4	2	3				7	41	123.0	HILTON	PT
6038N		3.0	2	3	2	4	8				10	29	87.0	JOHNSON	PT
6039N		3.0	15	5	3	2	8				3	36	108.0	HAYES	PT
6040N		3.0	1	3	4		3				4	15	45.0	GOULART	PT
6041N		3.0	7	4	2	1	7				12	33	96.0	MINOR	PT
6042N		3.0	12	6	2	1	8				12	41	120.0	HAYES	PT
6043		3.0	6	4	5	4	2			1	10	32	96.0	PALACIOS	
6044		3.0	5	5	4	3	3				9	29	84.0	PALACIOS	
6092		3.0		3	9		7				11	30	90.0	LINES	XP
COURSE TOTAL			170	170	143	51	123		1	2	232	892	2624.9		
MATH 170 ANALYTIC TRIGONOMETRY															
6045		3.0	3	4	5	4	2			1	6	25	72.0	MANCHESTER	PT
6046		3.0			2	1	10				6	19	57.0	LEE	
6047		3.0	6	9	6		4		1		15	41	123.0	FUNK	
6048N		3.0	4	4	4	1	2				14	29	87.0	LAMBE	PT
COURSE TOTAL			13	17	17	6	18		1	1	41	114	339.0		
MATH 175 COLLEGE ALGEBRA															
6049		4.0	1	5	6	2	9				16	39	148.0	DAVIS	
6050		4.0	6	10	12	1	7			2	14	52	208.0	CURRAN	PT
6051		4.0	3	3	7	4	11		1	2	6	37	148.0	DAVIS	
6054		4.0	6	8	8	3	6		1	1	13	46	160.0	FUNK	XP
6055N		4.0	2	9	9	2	2			1	10	35	136.0	LA-PLANT	PT
6056		4.0	3	4	5	2	9				27	50	200.0	DAVIS	
6057N		4.0	7	1	2		3				4	17	68.0	KAISER	PT
COURSE TOTAL			28	40	49	14	47		2	6	90	276	1088.0		
MATH 176 PRECALCULUS: FUNCTIONS/GRAPHS															
6058		6.0	6	10	11	6	6			1	9	49	294.0	HOVDE	
6059		6.0	7	5	12	5	2				11	42	240.0	CAPACIA	
6060		6.0	7	7	4	6	4			1	9	38	228.0	VANDEN-EYNDEN	
6061N		6.0	15	16	4		3		1		7	46	276.0	HARDIMAN	PT
COURSE TOTAL			35	38	31	17	15		1	2	36	175	1038.0		

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 178 CALCULUS-BUS-SOC & BEHAV SCI															
6063		4.0	4	3	6	4	3				11	31	124.0	BURRUS	PT
6064		4.0	8	11	8	2	6			1	8	44	176.0	GILES	XP
6065		4.0	12	11	7	2	3				11	46	184.0	GILES	
6066		4.0	6	13	4	3	2				8	36	144.0	PALACIOS	
6067		4.0	8	4	8	2	1				11	34	128.0	GAIPA	PT
6068N		4.0	5	8	8	1	3				8	33	132.0	GAIPA	PT
COURSE TOTAL			43	50	41	14	18			1	57	224	888.0		
MATH 180 ANALYTIC GEOMETRY & CALCULUS															
6070		5.0	6	12	4	4	4		1		12	43	210.0	MCCANN	PT
6072		5.0	6	8	8	4	4				11	41	205.0	PALACIOS	
6074		5.0	6	9	6	3	5				13	42	210.0	PEREIRA	XP
6076		5.0	2	5	8	2	2				10	29	145.0	PEREIRA	
6078N		5.0	6	2	10	2	5				13	38	190.0	TARVIN	
6079N		5.0	1	1	6	1	2				13	24	120.0	GOULART	PT
COURSE TOTAL			27	37	42	16	22		1		72	217	1080.0		
MATH 198 SUPERVISED TUTORING - MATH															
6081 **	17	0.0									100	100	0.0	HOVDE	
COURSE TOTAL													0.0		
MATH 199 SPECIAL STUDIES IN MATH															
6095		1.0	1									1	1.0	PEREIRA	
COURSE TOTAL			1									1	1.0		
MATH 245 DISCRETE MATH															
6082N		3.0		1	2	1	2			1	5	12	36.0	LEE	
COURSE TOTAL				1	2	1	2			1	5	12	36.0		
MATH 280 ANALYTIC GEOMETRY & CALCULUS															
6084		4.0	1	2	5	2	4		1		12	27	108.0	BURRUS	PT
6085		4.0	8	4	4	1	11				20	48	192.0	LINES	
6086		4.0	8	13	11	1					10	43	172.0	FUNK	
6087N		4.0	6	12	5		2				7	32	128.0	MILLAN	PT
COURSE TOTAL			23	31	25	4	17		1		49	150	600.0		
MATH 281 INTERMEDIATE CALCULUS															
6088		4.0	1	3	6	6	8				9	33	132.0	LEE	XP
6089N		4.0	5	13	9	2					6	35	140.0	WILSON	PT
COURSE TOTAL			6	16	15	8	8				15	68	272.0		
MATH 284 LINEAR ALGEBRA															
6090		3.0	2	5	5	4	3				5	24	72.0	LINES	
COURSE TOTAL			2	5	5	4	3				5	24	72.0		
MATH 285 DIFFERENTIAL EQUATIONS															
6091N		3.0	9	15	3		1				11	39	117.0	FUNK	

** CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
MATH 285 DIFFERENTIAL EQUATIONS (CONT"D)														
COURSE TOTAL			9	15	3		1				11	39	117.0	
SUBJECT TOTAL			687	790	777	302	584		588	350	1474	5552	21676.9	

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MATHEMATICS, NATURAL SCIENCES & PE MATHEMATICS, NATURAL SCIENCES & PE

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 080 BASIC MATHEMATICS															
6069	3	10.7								1	2	3	1.8	DENNEY	PT
6070N	8	4.0							13	5	5	23	32.9	WILLIAMS	PT
6071N	8	4.0							14	4	3	21	32.9	MINOR	PT
COURSE TOTAL									27	10	10	47	67.6		
MATH 087 STRATS SUCCESS IN MATH 080-090															
6073	8	2.0							7	1	2	10	7.3	VANDEN-EYNDEN	
COURSE TOTAL									7	1	2	10	7.3		
MATH 088 BASIC MATHEMATICS/PRE-ALGEBRA															
6075		4.0							4	6	7	17	68.0	BLUMENFELD	PT
6076	3	21.3							10	3	2	15	47.5	DENNEY	PT
6077		4.0							3	4	10	17	68.0	CASTILLO	PT
6078		4.0							10	2	12	24	96.0	VANDEN-EYNDEN	
6079		4.0							18	4	10	32	128.0	NOBILETTE	PT
6080		4.0							11	8	10	29	116.0	VANDEN-EYNDEN	
6082		4.0							5	1	3	9	36.0	NOBILETTE	PT
6083N		4.0							18	7	2	27	108.0	DENNEY	PT
6084N		4.0							18	5	10	33	132.0	HARDIMAN	PT
COURSE TOTAL									97	40	66	203	799.5		
MATH 088L COMP TUTOR REVIEW/PREALGEBRA															
6085	14	3.0							4	6	3	13	24.0	WORKING	XP
COURSE TOTAL									4	6	3	13	24.0		
MATH 089 PRE-ALGEBRA FOR MATH ANXIOUS															
6086		5.0							3	2	1	6	30.0	FUNK	
6088N		5.0							15	3	3	21	105.0	KAISER	PT
COURSE TOTAL									18	5	4	27	135.0		
MATH 090 ELEMENTARY ALGEBRA															
6090		5.0							8		5	13	65.0	SHORIZ	PT
6091		5.0							4	8	6	18	90.0	BASS	PT
6092		5.0							23	15	8	46	230.0	SCHOONOVER	PT
6093		6.0							15	11	11	37	222.0	WORKING	
6094		6.0							21	8	12	41	246.0	WORKING	
6095		6.0							16	6	14	36	210.0	WORKING	
6096		6.0							10	9	20	39	234.0	LINES	
6099		5.0							5	1	4	10	50.0	ORR	PT
6100		5.0							33	6	8	47	235.0	LAMB	PT
6103		5.0							14	4	14	32	160.0	LINES	XP
6104		5.0							19	8	13	40	195.0	HAU	PT
6105		5.0							13	15	7	35	170.0	PILIPETS	PT
6106		5.0							23	2	10	35	175.0	CONRAD	PT
6107		5.0							17	7	14	38	190.0	LARIOS	PT
6108N		5.0							10	10	13	33	165.0	KAZZAZI	PT
6109N		5.0							13	6	8	27	135.0	WILLWEBER	PT
6110N		5.0							11	4	5	20	90.0	LANGLEY	
6111N		5.0							4	6	17	27	130.0	FLOWERS	PT
6112N		5.0							17		10	27	135.0	LANGLEY	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 090 ELEMENTARY ALGEBRA							(CONT"D)								
6113N		5.0							6	6	3	15	75.0	WILLIAMS	PT
6114N		5.0							14	4	17	35	175.0	SPECKMANN	PT
COURSE TOTAL									296	136	219	651	3377.0		
MATH 090L COMP TUTOR REVIEW/ELEM ALGEBRA															
6115	14	3.4							1	17	6	24	49.0	GILES	
COURSE TOTAL									1	17	6	24	49.0		
MATH 097 PLANE GEOMETRY															
6116		3.0							6	8	5	19	57.0	WALLER	
6118N		3.0							5	3	3	11	33.0	RIDGWAY	PT
COURSE TOTAL									11	11	8	30	90.0		
MATH 103 INTERMEDIATE ALGEBRA															
6120		3.0	3	6	3						2	14	42.0	EMAMI	PT
6121	3	16.0	3	5	7	3	4		1	1	12	36	65.8	BRATTEN	PT
6122		3.0	2	10	13	5	2				8	40	120.0	SAFAEE	PT
6124		3.0	3	8	9	3	2		1		12	38	114.0	KMET	
6126		3.0	5	2	2		9				5	23	69.0	GREENHECK	PT
6127		3.0	3	3	4		6				8	24	66.0	MALONEY	PT
6128		3.0	10	13	11	7	4				11	56	168.0	KMET	
6129		3.0	5	8	7	5	8		2		16	51	153.0	KMET	
6130		3.0	7	8	8	4	6		2	1	14	50	150.0	KMET	
6131		3.0	8	11	12	6	4		1	1	15	58	174.0	KMET	
6132	3	16.0	4	4	7	1			2		10	28	49.4	BRATTEN	PT
6133	8	6.0	1	3	1				1		3	9	16.5	WALLER	XP
6134		3.0	11	9	5	2			4	2	11	44	132.0	KMET	XP
6135		3.0	8	7	8	4	9		2	1	13	52	156.0	KMET	XP
6136	8	6.0	3	4	2	1	2				8	20	32.9	ORR	PT
6138		3.0	1	12	7	2	6				6	34	99.0	WALLER	
6139		3.0	1	4	1	2	8		1		6	23	69.0	YANICH	PT
6140		3.0	10	12	1	1	2				12	38	114.0	HARDIMAN	PT
6141		3.0	4	7	7	2	7				5	32	96.0	LA-PLANT	PT
6142N		3.0	1	2	4	3			2		11	23	72.0	LIEBERKNECHT	PT
6145N	8	6.0	4	10	4						1	19	49.4	EMAMI	PT
6147N		3.0	4	9	6		6		2		10	37	111.0	KAZZAZI	PT
6149N		3.0	1	4	4	3	5				7	24	69.0	LAMBE	PT
6150N		3.0	2	3		1	1				6	13	36.0	LA-PUMA	PT
7742	4	12.0	11	8	5	2	2		1		9	38	79.5	KMET	XP
COURSE TOTAL			115	172	138	57	93		22	6	221	824	2303.5		
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG															
6152		5.0	5	7	2	1	6		1		3	25	125.0	GREENHECK	PT
6153		5.0	1			2	8				21	32	160.0	HOMANN	PT
6155		5.0	2	1	7		1					11	55.0	BABAN	PT
6157		5.0	3	2	4	1	7		1		5	23	115.0	CAPACIA	
6158		5.0	2	6	5	4	7			1	8	33	160.0	CAPACIA	XP
6159		5.0	3	2	5	4	8		1		6	29	145.0	CAPACIA	XP
6161		6.0	16	8	10	2	10		2	1	13	62	372.0	GILES	
6162		5.0	2	9	7	6	5			2	25	56	280.0	SMITH	XP

MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG (CONT"D)

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6164		5.0	1	2	3	1	2		1		10	20	100.0	COHEN	PT
6165		5.0	14	3	8	2	2				12	41	205.0	WARD	PT
6167		5.0	6	5	7	6	9		2		19	54	270.0	MANCHESTER	PT
6168N		5.0	3	8	9	4	2				10	36	180.0	SAFAEE	PT
6170N		5.0	2	1	2	3	14			2	12	36	170.0	DAVIS	
6171N		5.0	2	9	7	2	1				9	30	150.0	WINN	PT
6173N		5.0	2	4	3	1	6			1	5	22	105.0	GOULART	PT
6175N		5.0	2	2	6	5	18				15	48	235.0	RIDGWAY	PT
6176N		5.0	1	1	3		2				8	15	75.0	JOHNSON	PT
COURSE TOTAL			67	70	88	44	108		8	7	181	573	2902.0		

MATH 110L COMP TUTOR REVIEW/INTM ALGEBRA

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6177	14	3.0							2	7	2	11	21.6	DAVIS	
COURSE TOTAL									2	7	2	11	21.6		

MATH 120 MATH FOR GENERAL EDUCATION

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6178		3.0		4	4	1					6	15	45.0	HOMANN	PT
6179	3	16.0	3	8	4						5	20	41.1	ORR	PT
6180		3.0	4	4	6	2	1				3	20	60.0	CAPACIA	
6182		3.0	2	3	13	6	6		1		4	35	105.0	LEE	
6183		3.0	9	9	18	2			2		2	42	126.0	MCCANN	PT
6185	8	6.0	8	3	2		3			1		17	46.6	WALLER	
6186		3.0	8	11	9	1	3		1		10	43	129.0	WALLER	
6187		3.0		4	15	1	2				13	35	105.0	LEE	
6188		3.0	15	8	7	1	1		1		5	38	114.0	CONRAD	PT
6189N	8	6.0	6	11	5		4				1	27	71.3	LARIOS	PT
6190N		3.0	6	9	7	2	1				2	27	81.0	WILLWEBER	PT
6192N		3.0	18	5	1						3	27	81.0	SUNDERMAN	PT
7744	4	12.0	2	1	4				2		3	12	24.7	ORR	PT
COURSE TOTAL			81	80	95	16	21		7	1	57	358	1029.7		

MATH 125 STRUCTURE/CONCEPTS ELEM MATH I

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6195		4.0	3	4	8	3	4				3	25	100.0	VILLEGAS	PT
6197		4.0	2	3	7	5					2	19	76.0	PEREIRA	
6198N		4.0	2	2	2							6	24.0	TAMANAHA-JUSTE	PT
COURSE TOTAL			7	9	17	8	4				5	50	200.0		

MATH 126 STRUCTURE/CONCEPT ELEM MATH II

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6200		4.0	2	4	5	3	3				3	20	80.0	LEE	XP
6201		4.0	5	3	6	2	1				2	19	76.0	VILLEGAS	PT
COURSE TOTAL			7	7	11	5	4				5	39	156.0		

MATH 128 CHILDREN'S MATHEMATIC THINKING

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6202	8	3.0	19	7	5	1	1				1	34	45.3	TAMANAHA-JUSTE	PT
COURSE TOTAL			19	7	5	1	1				1	34	45.3		

MATH 150 INTRO/CMPTR PRGM/FORTRAN

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6204N		3.0	4	7							1	12	36.0	MALONEY	PT
COURSE TOTAL			4	7							1	12	36.0		

MATHEMATICS, NATURAL SCIENCES & PE

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	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 160 ELEMENTARY STATISTICS															
6206	3	16.0	5	10	10	2	8				9	44	96.0	LINES	XP
6207		3.0	7	15	13		5				9	49	147.0	WALLER	
6209		3.0	1	3		3	4				6	17	51.0	CHOW	
6211		3.0	3	3	2	3	2				7	20	60.0	CHOW	
6212		3.0	1	5	5		2				8	21	60.0	SADEGHIPOUR	PT
6213		3.0	3	5	6	3	5				18	40	120.0	CHOW	
6216		3.0	9	6	4	4	5		1		14	43	126.0	CHOW	
6217		3.0	13	19	9	3					8	52	156.0	GILES	
6218	3	16.0	10	10	11	1	8				7	47	109.7	LINES	XP
6219		3.0		5	5		8				13	31	93.0	CHOW	
6220		3.0	16	19	27	1	3				4	70	210.0	CURRAN	PT
6222		3.0	2	5	10	6	7				8	38	114.0	LINES	XP
6223		3.0	4	5	1		2				2	14	42.0	PALACIOS	
6224		3.0		3	3		1				2	9	27.0	SIBBALD	PT
6225		3.0	5	6	9	4	4				11	39	114.0	PEREIRA	
6226	8	6.0	2	5	5	2					2	16	38.4	GORDON	PT
6227	8	6.0	3	3	11	1	6				23	47	65.8	GORDON	PT
6228		3.0	2	8	10	5	3			2	15	45	135.0	MANCHESTER	PT
6229		3.0	14	9	7	1	1				6	38	114.0	HILTON	PT
6230		3.0	31	28	7				1			67	201.0	LAMB	PT
6231N		3.0	2		2	2	3				7	16	48.0	JOHNSON	PT
6232N		3.0	9	6	6	5	5				8	39	114.0	HAYES	PT
6233N		3.0	2	4	2		2			1	7	18	54.0	GOULART	PT
6234N		3.0	2	4	3	2	4				6	21	63.0	MINOR	PT
6235N		3.0	6	5	4	3	8				9	35	105.0	HAYES	PT
6236		3.0	1	3	1	2	1				2	10	30.0	PALACIOS	
6237		3.0	3	2	5	4	4				14	32	93.0	PALACIOS	
6238		3.0	5	4	7	4					4	24	72.0	PALACIOS	
7746	4	12.0	7	8	3		1				10	29	52.1	PALACIOS	XP
COURSE TOTAL			168	208	188	61	102		2	3	239	971	2711.0		
MATH 170 ANALYTIC TRIGONOMETRY															
6241		3.0	2	4	4	2	1		1		6	20	60.0	SIBBALD	PT
6243		3.0	1			1	7				3	12	36.0	LEE	
6244		3.0	4	9	11	2	6				12	44	132.0	FUNK	
6245N		3.0	11	6	5		3				10	35	105.0	WARD	PT
6246N		3.0	2	5	5		2				5	19	57.0	WINN	PT
COURSE TOTAL			20	24	25	5	19		1		36	130	390.0		
MATH 175 COLLEGE ALGEBRA															
6247		4.0	1	4			9			1	8	23	92.0	DAVIS	
6248		4.0	5	9	16	1	2			1	16	50	200.0	CURRAN	PT
6249		4.0	3	5	3	2	5				22	40	160.0	DAVIS	
6250		4.0	4	6	2	3	8				7	30	116.0	DAVIS	XP
6252		4.0	2	6	8	2	1				16	35	136.0	FUNK	XP
6254N		4.0	2		2	1	2				2	9	32.0	YANICH	PT
6257N		4.0	3	9	6	2	2		2		5	29	116.0	LA-PLANT	PT
COURSE TOTAL			20	39	37	11	29		2	2	76	216	852.0		

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 176 PRECALCULUS: FUNCTIONS/GRAPHS															
6259		6.0	2	6	8	4	4		3		10	37	222.0	HOVDE	XP
6261		6.0		2	3	3	1				9	18	108.0	VANDEN-EYNDEN	
6262		6.0	6	9	7	2				1	12	37	222.0	CAPACIA	
6265N		6.0	6	5	2	1	3			2	9	28	168.0	NADALET	PT
COURSE TOTAL			14	22	20	10	8		3	3	40	120	720.0		
MATH 178 CALCULUS-BUS-SOC & BEHAV SCI															
6267		4.0	15	11	14						6	46	180.0	GILES	XP
6269		4.0	11	12	11	2	6				12	54	216.0	GILES	
6270		4.0	6	6	8	1	4				7	32	124.0	PALACIOS	
6271		4.0	10	8	9	1					13	41	160.0	SADEGHIPOUR	PT
6272		4.0	3	3		1	1				6	14	56.0	WILSON	PT
6274N		4.0	2	4	5		3				4	18	72.0	WILSON	PT
6275N		4.0	3	4	3	3	3				11	27	108.0	BURRUS	PT
COURSE TOTAL			50	48	50	6	17				59	232	916.0		
MATH 180 ANALYTIC GEOMETRY & CALCULUS															
6278		5.0	2		4	1	3				10	20	100.0	BROWN	PT
6280		5.0	3	6	4	4	4				17	38	190.0	PALACIOS	
6281		5.0	7	4	6	4	6				12	39	195.0	PEREIRA	XP
6282		5.0	2	3	6	1					2	14	70.0	PEREIRA	
6283N		5.0	2	6	11	1	3				8	31	150.0	MANCHESTER	PT
6284		5.0	7	13	14	4	6				10	54	265.0	LAMBE	PT
6285N		5.0	3	5	4	2	4				11	29	140.0	LIEBERKNECHT	PT
COURSE TOTAL			26	37	49	17	26				70	225	1110.0		
MATH 198 SUPERVISED TUTORING - MATH															
6289 **	16	0.0									97	97	0.0	HOVDE	
COURSE TOTAL													0.0		
MATH 245 DISCRETE MATH															
6291		3.0		2	3	2	4				11	22	66.0	LEE	
COURSE TOTAL				2	3	2	4				11	22	66.0		
MATH 280 ANALYTIC GEOMETRY & CALCULUS															
6292		4.0	8	8	6						3	25	100.0	MCCANN	PT
6294		4.0	3	2	8	1	7				15	36	144.0	LINES	
6295		4.0	5	13	10	2	3		1		10	44	172.0	FUNK	
6297N		4.0	2	5	3	5	5				11	31	120.0	BURRUS	PT
COURSE TOTAL			18	28	27	8	15		1		39	136	536.0		
MATH 281 INTERMEDIATE CALCULUS															
6299		4.0	1	2	5	1	3				13	25	100.0	LEE	
6301N		4.0	14	12	8						5	39	156.0	LA-PUMA	PT
COURSE TOTAL			15	14	13	1	3				18	64	256.0		

** CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
MATH 284 LINEAR ALGEBRA														
6304N		3.0	6	8	8	1	2			1	6	32	96.0	FUNK
COURSE TOTAL			6	8	8	1	2			1	6	32	96.0	
MATH 285 DIFFERENTIAL EQUATIONS														
6306		3.0	2	5	6						9	22	63.0	LINES
COURSE TOTAL			2	5	6						9	22	63.0	
SUBJECT TOTAL			639	787	780	255	456		509	256	1394	5076	18959.5	

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	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 080 BASIC MATHEMATICS															
5895N	8	4.0							13	5	7	25	32.9	MINOR	PT
5897N	8	4.0							6	5		11	20.1	WILLIAMS	PT
COURSE TOTAL									19	10	7	36	53.0		
MATH 088 BASIC MATHEMATICS/PRE-ALGEBRA															
5902		4.0							8	7	8	23	92.0	CASTILLO	PT
5903		4.0							13	9	13	35	140.0	LINES	
5904		4.0							9	3	9	21	84.0	BABAN	PT
5905		4.0							14	3	13	30	120.0	LEE	XP
5907		4.0							18	6	9	33	132.0	ORR	PT
5909N		4.0							29	5	3	37	148.0	HARDIMAN	PT
5910N		4.0							10	3	3	16	64.0	CURIEL	PT
COURSE TOTAL									101	36	58	195	780.0		
MATH 088L COMP TUTOR REVIEW/PREALGEBRA															
5911	14	3.4							4	10	4	18	38.1	VANDEN-EYNDEN	
COURSE TOTAL									4	10	4	18	38.1		
MATH 089 PRE-ALGEBRA FOR MATH ANXIOUS															
5914N		5.0							12	4	2	18	90.0	WILLIAMS	PT
COURSE TOTAL									12	4	2	18	90.0		
MATH 090 ELEMENTARY ALGEBRA															
5915		5.0							19	6	1	26	130.0	PETERSON	PT
5917		5.0							12	19	13	44	220.0	ORR	PT
5919		5.0							13	21	7	41	205.0	SCHOONOVER	PT
5920		6.0							18	17	7	42	252.0	WORKING	
5922		6.0							19	12	8	39	234.0	WORKING	
5924		6.0							15	14	9	38	222.0	WORKING	XP
5926		6.0							14	11	15	40	240.0	LINES	
5928		6.0							5	6	5	16	96.0	FUNK	
5930		6.0							6	17	6	29	174.0	YANICH	PT
5932		5.0							48	1	6	55	275.0	LAMB	PT
5933		5.0							16	12	18	46	230.0	LINES	XP
5934		5.0							22		18	40	195.0	CONRAD	PT
5935		5.0							14	8	15	37	185.0	LA-PUMA	PT
5936		5.0							15	13	14	42	210.0	NOBILETTE	PT
5937		5.0							9	13	13	35	175.0	LARIOS	PT
5938N		5.0							24	3	20	47	235.0	KAISER	PT
5939N		5.0							16	10	11	37	185.0	KAZZAZI	PT
5941N		5.0							22	6	13	41	205.0	WILLWEBER	PT
5942N		5.0							9	15	10	34	170.0	FLOWERS	PT
5943N		5.0							17	4	16	37	185.0	SPECKMANN	PT
5944N		5.0							19	18	9	46	230.0	MINOR	PT
5945N		5.0							31	6	9	46	225.0	DENNEY	PT
COURSE TOTAL									383	232	243	858	4478.0		
MATH 090L COMP TUTOR REVIEW/ELEM ALGEBRA															
5946	14	3.4							1	15	7	23	43.5	VANDEN-EYNDEN	

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 090L COMP TUTOR REVIEW/ELEM ALGEBRA (CONT"D)															
COURSE TOTAL									1	15	7	23	43.5		
MATH 097 PLANE GEOMETRY															
5947		3.0							17	2	2	21	63.0	LA-PUMA	PT
5948N		3.0							14	8	3	25	75.0	RIDGWAY	PT
COURSE TOTAL									31	10	5	46	138.0		
MATH 103 INTERMEDIATE ALGEBRA															
5950		3.0	6	8	3	3	4		3	1	15	43	129.0	KMET	
5951		3.0	1	5	3	1	27			1	8	46	138.0	CAPACIA	
5953		3.0	10	10	10	8	8			2	19	67	195.0	KMET	
5954		3.0	1	10	11	3	16				6	47	141.0	CAPACIA	
5956		3.0	1	2	4	4	6				9	26	78.0	MALONEY	PT
5957		3.0	8	8	14	5	5				14	54	162.0	KMET	
5958		3.0	10	10	10	2	6			1	19	58	174.0	KMET	
5959		3.0	5	18	8	3	5		1		15	55	165.0	KMET	XP
5960		3.0	10	5	10	8	4		1		12	50	150.0	KMET	XP
5961	8	6.0	5	7	10	2	4				4	32	76.8	HAU	PT
5962		3.0	1	1	4		11				22	39	117.0	LEE	
5964		3.0	5	3	4	8	11		2	4	4	41	123.0	CAPACIA	XP
5965		3.0	2	5	7	9	6				7	36	108.0	SIBBALD	PT
5966		3.0	1	4	2	1	1				4	13	39.0	YANICH	PT
5968		3.0	5	5	5		3				13	31	93.0	SCHOONOVER	PT
5969		3.0	1	3	5	1	9		1		8	28	84.0	LA-PLANT	PT
5970N		3.0		3	5	1	2				8	19	57.0	LIEBERKNECHT	PT
5971N		3.0	25	6	1		3		1		4	40	120.0	SUNDERMAN	PT
5972N	8	6.0	5	8	3				1		1	18	46.6	EMAMI	PT
5973N		3.0	8	9	6		2		1		11	37	111.0	KAZZAZI	PT
5974N		3.0	8	13	4		4				5	34	99.0	HARDIMAN	PT
5975		3.0	5	8	5	1	5		1		15	40	117.0	GILES	
5976		3.0	4	2	6	2	4				12	30	87.0	GILES	
COURSE TOTAL			127	153	140	62	146		12	9	235	884	2610.4		
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG															
5978		5.0	2	6	13	7	7				7	42	210.0	SAFAEE	PT
5979		5.0	3	1	4	5	11				8	32	160.0	GREENHECK	PT
5980		5.0	1	2	2	1	4		1	1	29	41	205.0	HOMANN	PT
5981		5.0	2	7	4		4				7	24	120.0	BABAN	PT
5983		6.0	3		1		3				9	16	90.0	HOVDE	
5984		6.0	1	3	7	4	8			1	13	37	222.0	HOVDE	XP
5985		6.0	3	5	4	1	1			1	8	23	138.0	HOVDE	XP
5986		6.0			1							1	6.0	HOVDE	
5988		5.0	12	20	5		4				14	55	275.0	GILES	
5989		5.0	3	6	12	4	4		3	4	18	54	270.0	SMITH	XP
5990		5.0	1	8	12	5	4				13	43	215.0	MANCHESTER	PT
5991		5.0	18	11	2		1		1		17	50	250.0	WARD	PT
5992		5.0	6	5	7	4	8				11	41	205.0	PILIPETS	PT
5993		5.0	6	7	7	5	5		1		7	38	190.0	HAU	PT
5994		5.0	2	4	1	3	5				24	39	190.0	BLUMENFELD	PT
5995N		5.0		1	5	1	11				13	31	155.0	JOHNSON	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG (CONT"D)															
5996N		5.0	3	1	8	2	11		1		7	33	160.0	SADEGHIPOUR	PT
5997N		5.0	4	15	5	6	2			1	9	42	210.0	WINN	PT
5998N		5.0	11	6	4	2	9				12	44	220.0	RIDGWAY	PT
5999N		5.0	5	7	3	3	7				15	40	200.0	VILLEGAS	PT
COURSE TOTAL			86	115	107	53	109		7	8	241	726	3691.0		
MATH 110L COMP TUTOR REVIEW/INTM ALGEBRA															
6001	14	3.4							1	11	8	20	32.6	DAVIS	
COURSE TOTAL									1	11	8	20	32.6		
MATH 120 MATH FOR GENERAL EDUCATION															
6002		3.0	7	18	14	1					3	43	129.0	EMAMI	PT
6003		3.0	7	5	6		2				1	21	63.0	GREENHECK	PT
6004		3.0	18	19	3	1					1	42	126.0	WALLER	
6005		3.0	3								2	5	15.0	SAFAEE	PT
6006		3.0	1	1	25	1	3				10	41	123.0	HOMANN	PT
6007	8	6.0	6	9	2		3				4	24	54.9	CONRAD	PT
6008		3.0	13	9	6	1	2		1		4	36	108.0	DENNEY	PT
6010		3.0	2	5	10	3	2		1		11	34	102.0	LEE	XP
6011		3.0	2	5	5	2					9	23	66.0	BURRUS	PT
6012N		3.0	16	11	3	1	1				6	38	114.0	WARD	PT
6013N	8	6.0	6	6	4	1	1		2		3	23	54.9	LARIOS	PT
6014N		3.0	10	10	5	1	1				2	29	87.0	WILLWEBER	PT
COURSE TOTAL			91	98	83	12	15		4		56	359	1042.8		
MATH 125 STRUCTURE/CONCEPTS ELEM MATH I															
6015		4.0		2	3	2	7				8	22	88.0	LEE	
6016		4.0	1	4	4	1	4					14	56.0	VILLEGAS	PT
6017N		4.0	4	4	4		2				4	18	72.0	TAMANAHA-JUSTE	PT
COURSE TOTAL			5	10	11	3	13				12	54	216.0		
MATH 126 STRUCTURE/CONCEPT ELEM MATH II															
6018		4.0		2	2		1				8	13	48.0	LEE	
6019		4.0	3	3	3	1					3	13	52.0	PEREIRA	
COURSE TOTAL			3	5	5	1	1				11	26	100.0		
MATH 128 CHILDREN'S MATHEMATIC THINKING															
6020	8	3.0	11	2	2	2	1				4	22	24.7	PEREIRA	
6021N	8	3.0	13	4	1						4	22	24.7	TAMANAHA-JUSTE	PT
COURSE TOTAL			24	6	3	2	1				8	44	49.4		
MATH 150 INTRO/CMPTR PRGM/FORTRAN															
6022N		3.0	3	5	1						2	11	33.0	MALONEY	PT
COURSE TOTAL			3	5	1						2	11	33.0		
MATH 160 ELEMENTARY STATISTICS															
6023		3.0	5	12	15	7	7				12	58	174.0	MANCHESTER	PT
6024		3.0	2	1	7	3	5				10	28	84.0	CHOW	
6025		3.0	2	2	6	2	6				23	41	120.0	CHOW	
6026		3.0	5	4	6		3				6	24	72.0	SADEGHIPOUR	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 160 ELEMENTARY STATISTICS (CONT"D)															
6027		3.0	6	5	9	4	4				14	42	126.0	CHOW	
6028		3.0	3	1	9	6	6				15	40	120.0	CHOW	
6029		3.0	2	14	9	1			1		12	39	111.0	STARKENBURG	PT
6030		3.0	1	4	5	3	10				12	35	102.0	LINES	
6031		3.0	10	10	27	2	7				5	61	183.0	CURRAN	PT
6032		3.0	4	6	6	2	3				21	42	126.0	CHOW	
6033		3.0	8	2	5	4	1				6	26	78.0	PALACIOS	
6034		3.0	8	13	9	3	5		1	1	10	50	150.0	WALLER	
6035	8	6.0	2	2	10						2	16	38.4	GORDON	PT
6036	8	6.0	2	7	6	3	3				20	41	57.6	GORDON	PT
6037		3.0	30	19	1						5	55	165.0	LAMB	PT
6038		3.0	10	14	4	2	2		1		13	46	138.0	WALLER	
6039N		3.0	16	9	4		4				11	44	132.0	HILTON	PT
6040N		3.0	5	10	9	2	9				7	42	123.0	HAYES	PT
6041N		3.0	3		2	2	8				3	18	54.0	JOHNSON	PT
6042N		3.0	4	7	5	3	2				5	26	78.0	HAYES	PT
6043		3.0	3	2	4	2	3				15	29	81.0	PALACIOS	
6044		3.0	1	4	3	1	6				18	33	96.0	PALACIOS	
6092		3.0		1	5	1	1		1		7	16	45.0	SIBBALD	PT
COURSE TOTAL			132	149	166	53	95		4	1	252	852	2454.0		
MATH 170 ANALYTIC TRIGONOMETRY															
6046		3.0			1	5	4				11	21	63.0	LEE	
6047		3.0	2	6	6	5	8				9	36	108.0	FUNK	
6048		3.0	4	5	5	5	6				7	32	96.0	LAMBE	PT
6049N		3.0	7	2	8	3	1				6	27	84.0	WINN	PT
COURSE TOTAL			13	13	20	18	19				33	116	351.0		
MATH 175 COLLEGE ALGEBRA															
6050		4.0	12	5	8	4	2				12	43	172.0	SADLER	PT
6051		4.0	3	5	8	4	6		2	2	12	42	168.0	PEREIRA	
6052		4.0	2	4	6	7	9				12	40	152.0	DAVIS	
6053		4.0	5	8	11	2	5			1	9	41	164.0	CURRAN	PT
6054		4.0	2	7	6	3	2				17	37	148.0	FUNK	
6055N		4.0	3	8	4	1	1				15	32	128.0	LA-PLANT	PT
6056		4.0	5	4	5	1	8				14	37	148.0	PEREIRA	
6057N		4.0	1	1	2	1	2				9	16	64.0	BROWN	PT
COURSE TOTAL			33	42	50	23	35		2	3	100	288	1144.0		
MATH 176 PRECALCULUS: FUNCTIONS/GRAPHS															
6058		6.0	5	9	11	5	6			1	14	51	306.0	VANDEN-EYNDEN	
6059		6.0	4	6	9	2	3				10	34	204.0	COHEN	PT
6060		6.0	9	11	8	2	4				5	39	234.0	WALLER	
6061N		6.0	3	3	8	1	5				16	36	216.0	HORNE	PT
COURSE TOTAL			21	29	36	10	18			1	45	160	960.0		
MATH 178 CALCULUS-BUS-SOC & BEHAV SCI															
6062		4.0	5	7	4		1				6	23	92.0	MCCANN	PT
6063		4.0	13	11	7	4	3				3	41	164.0	CAPACIA	
6064		4.0	16	8	6		3				12	45	180.0	GILES	

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 178 CALCULUS-BUS-SOC & BEHAV SCI (CONT"D)															
6065		4.0	10	11	6	3	2				10	42	168.0	GILES	
6066		4.0	11	5	7	1	3				11	38	152.0	PALACIOS	
6067		4.0	2	4	11	1	1				3	22	88.0	WILSON	PT
6068N		4.0	2	2	3		1				5	13	48.0	WILSON	PT
6069N		4.0	4	3	4	3	8				7	29	116.0	NADALET	PT
COURSE TOTAL			63	51	48	12	22				57	253	1008.0		
MATH 180 ANALYTIC GEOMETRY & CALCULUS I															
6070		5.0	2	6	5	2	1				6	22	110.0	HICKS	PT
6072		5.0	6	5	9	3	2				17	42	210.0	PALACIOS	
6074		5.0	9	12	12	7	4		1		7	52	260.0	CAPACIA	
6076		5.0	6	8	8	1	2				7	32	160.0	VANDEN-EYNDEN	XP
6077		5.0	5	9	10	5	3		1		10	43	205.0	LAMBE	PT
6078N		5.0	3	3	4	5	12				18	45	225.0	DAVIS	
6079N		5.0	3	4	3	5	3				15	33	140.0	LIEBERKNECHT	PT
COURSE TOTAL			34	47	51	28	27		2		80	269	1310.0		
MATH 198 SUPERVISED TUTORING - MATH															
6081 **	17	0.0									128	128	0.0	HOVDE	
COURSE TOTAL													0.0		
MATH 245 DISCRETE MATH															
6082N		3.0	3	4	1	1	1				3	13	39.0	VANDEN-EYNDEN	
COURSE TOTAL			3	4	1	1	1				3	13	39.0		
MATH 280 ANALYTIC GEOMETRY/CALCULUS II															
6083		4.0	4		4						2	10	40.0	MCCANN	PT
6084		4.0	1	5	4	1	7				10	28	112.0	LINES	XP
6085		4.0	4	5	4	3	2				13	31	124.0	PEREIRA	XP
6086		4.0	4	9	14	6	5				9	47	184.0	FUNK	XP
6087N		4.0	2	2	4		1				9	18	72.0	BURRUS	PT
COURSE TOTAL			15	21	30	10	15				43	134	532.0		
MATH 281 INTERMEDIATE CALCULUS															
6088		4.0	7	4	11	6	5				10	43	172.0	WORKING	
6089N		4.0	4	5	1	2					5	17	68.0	NGUYEN	PT
COURSE TOTAL			11	9	12	8	5				15	60	240.0		
MATH 284 LINEAR ALGEBRA															
6090		3.0	6	4	11	3	2				11	37	111.0	FUNK	
COURSE TOTAL			6	4	11	3	2				11	37	111.0		
MATH 285 DIFFERENTIAL EQUATIONS															
6091N		3.0	9	10	7	2					9	37	111.0	WALLER	XP
COURSE TOTAL			9	10	7	2					9	37	111.0		
SUBJECT TOTAL			679	771	782	301	524		583	350	1547	5537	21655.8		

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08-03-2011 14:50:55 GRADE DISTRIBUTION SUMMARY SPRING 2007

MATHEMATICS, NATURAL SCIENCES & PE MATHEMATICS, NATURAL SCIENCES & PE

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 080 BASIC MATHEMATICS															
6070	8	4.0							10	6	6	22	29.3	WILLIAMS	PT
6071	8	4.0							6		2	8	11.0	MINOR	PT
COURSE TOTAL									16	6	8	30	40.3		
MATH 087 STRATS SUCCESS IN MATH 080-090															
6073	8	2.0							4		2	6	3.7	TAMANAHA-JUSTE	PT
COURSE TOTAL									4		2	6	3.7		
MATH 088 BASIC MATHEMATICS/PRE-ALGEBRA															
6075	3	21.3							10	3	1	14	47.5	DENNEY	PT
6076		4.0							23	4	11	38	152.0	DENNEY	PT
6078		4.0							6	9	13	28	112.0	CASTILLO	PT
6079		4.0							15	4	15	34	136.0	LEE	
6080		4.0							7	4	12	23	92.0	LINES	
6083N		4.0							7	6	11	24	96.0	COHEN	PT
6084N		4.0							27	7	6	40	160.0	HARDIMAN	PT
7741	4	16.0							4		7	11	14.6	VANDEN-EYNDEN	XP
COURSE TOTAL									99	37	76	212	810.1		
MATH 088L COMP TUTOR REVIEW/PREALGEBRA															
6085	3	16.0							2	1	2	5	8.2	ORR	
6086	14	3.4							2	8	3	13	27.2	VANDEN-EYNDEN	
6087	4	12.0							1		3	4	2.7	PEREIRA	XP
COURSE TOTAL									5	9	8	22	38.1		
MATH 089 PRE-ALGEBRA FOR MATH ANXIOUS															
6088N		5.0							10		6	16	80.0	WILLIAMS	PT
COURSE TOTAL									10		6	16	80.0		
MATH 090 ELEMENTARY ALGEBRA															
6090		5.0							8	2	10	20	100.0	HICKS	PT
6091		5.0							18	3	11	32	160.0	SAFAEE	PT
6092		5.0							10	6	14	30	150.0	SCHOONOVER	PT
6093		6.0							13	8	13	34	204.0	WORKING	
6094		6.0							9	5	7	21	132.0	WORKING	XP
6095		6.0							20	9	11	40	240.0	WORKING	XP
6096		6.0							17	6	6	29	174.0	LINES	
6098		5.0							29	12	4	45	225.0	DENNEY	PT
6099		5.0							7	4	5	16	80.0	FUNK	
6100		5.0							36		14	50	250.0	LAMB	PT
6103		5.0							8	6	19	33	165.0	LINES	
6105		5.0							15	9	4	28	140.0	PILIPETS	PT
6106		5.0							10	7	17	34	170.0	NOBILETTE	PT
6107		5.0							15	12	16	43	215.0	LARIOS	PT
6108N		5.0							16	10	13	39	195.0	KAZZAZI	PT
6109N		5.0							15	8	13	36	180.0	KAISER	PT
6110N		5.0							18	6	8	32	155.0	WILLWEBER	PT
6111N		5.0							4	8	10	22	110.0	FLOWERS	PT
6112N		5.0							11	4	21	36	175.0	HILTON	PT
6113N		5.0							10	4	10	24	120.0	MINOR	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 090 ELEMENTARY ALGEBRA (CONT"D)															
6114N		5.0							17	3	12	32	160.0	SPECKMANN	PT
COURSE TOTAL									306	132	238	676	3500.0		
MATH 090L COMP TUTOR REVIEW/ELEM ALGEBRA															
6115	3	16.0							3	2	6	11	13.7	ORR	PT
6116	14	3.4								5	5	10	13.6	VANDEN-EYNDEN	
6117	4	12.0							1		1	2	2.7	PEREIRA	
COURSE TOTAL									4	7	12	23	30.0		
MATH 097 PLANE GEOMETRY															
6119		3.0							10		2	12	33.0	HAU	PT
6120N		3.0							8	4	4	16	48.0	RIDGWAY	PT
COURSE TOTAL									18	4	6	28	81.0		
MATH 103 INTERMEDIATE ALGEBRA															
6121	3	16.0	7	16	12	6	1				5	47	115.2	SAFAEE	PT
6123		3.0	1	2	5	1	2			1	8	20	60.0	CAPACIA	
6124		3.0	3	5	10	3	4				13	38	114.0	KMET	
6125		3.0	5	6	11	3	6				12	43	126.0	KMET	
6126		3.0	6	2	7	3	12				10	40	120.0	CAPACIA	
6127		3.0	4	3	3		1		1		8	20	57.0	MALONEY	PT
6129		3.0	16	10	8	6	5		1		5	51	153.0	KMET	
6130		3.0	7	5	8		11		1		19	51	150.0	KMET	
6131		3.0	12	8	7	3	9			1	11	51	153.0	KMET	
6132	3	16.0		4	8	1	7		2		13	35	60.3	LINES	XP
6133	8	6.0	5	3		1			1		3	13	27.4	SCHOONOVER	PT
6134		3.0		3	4	2	5				20	34	102.0	LEE	XP
6135		3.0	10	11	7	1	2				14	45	135.0	KMET	XP
6137		3.0	6	7	5	3	11		1	1	7	41	120.0	CAPACIA	
6138		3.0	5	6	3	2	3				12	31	93.0	MILLAN	
6139		3.0	1	1	1	2	7				3	15	45.0	MANCHESTER	XP
6140		3.0	2	5	4	4	2				4	21	63.0	SAFAEE	PT
6141		3.0	3	5	8	1	2		2		7	28	84.0	LA-PLANT	PT
6142N		3.0	4	3	2	5	5				4	23	69.0	LIEBERKNECHT	PT
6143N		3.0		1	3						2	6	18.0	LINES	XP
6144N		3.0	6	4	3	2	2				8	25	72.0	MILLAN	
6145N	8	6.0	18	3	5		1		1		4	32	76.8	WARD	PT
6147N		3.0	2	5	8		3				9	27	78.0	KAZZAZI	PT
6149N		3.0	3	9	2		4				5	23	69.0	HARDIMAN	PT
6150		3.0	3	8	5	3	3				15	37	105.0	GILES	
6151		3.0	6	3	3	1	2				18	33	96.0	GILES	
7742	4	12.0	7	3	4	4	2		1		5	26	57.6	KMET	XP
COURSE TOTAL			142	141	146	57	112		11	3	244	856	2419.3		
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG															
6152		5.0	4	2	6	4	5				10	31	155.0	GREENHECK	PT
6153		6.0	1	2	6	3	5				5	22	132.0	MANCHESTER	
6154		6.0		1	2	1	4				14	22	126.0	HOMANN	PT
6155		5.0	6	5	6	3			1		6	27	135.0	SHORIZ	PT
6157		5.0	1	3		1					3	8	40.0	HOVDE	XP

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MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG (CONT"D)

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6158		5.0	1	5	4	2	2				7	21	105.0	HOVDE	
6159		5.0	3	4		1	4				5	17	80.0	HOVDE	
6161		6.0	14	7	10	5	4		2		10	52	312.0	GILES	
6162		5.0	5	5	8	5	6		1	2	19	51	255.0	SMITH	XP
6164		5.0	5	7	8	3	6				14	43	210.0	CURRAN	PT
6165		5.0	12	7	7		5				8	39	195.0	WARD	PT
6167		5.0	3		2	5	10			1	6	27	135.0	CURIEL	PT
6168		6.0	3	7	6	2	5				11	34	204.0	HAU	PT
6169N		6.0	2	3	4	1	8				17	35	210.0	BLUMENFELD	PT
6170N		5.0	1		1	2	7				3	14	70.0	JOHNSON	PT
6171N		5.0	11	10	1	4	4			1	12	43	215.0	SUNDERMAN	PT
6172N		6.0	6	3	11	3	4				6	33	198.0	WINN	PT
6173N		6.0	2	1	4	1	14			1	15	38	228.0	RIDGWAY	PT
6174N		6.0	3	3	4	3	4				7	24	144.0	VILLEGAS	PT
COURSE TOTAL			83	75	90	49	97		4	5	178	581	3149.0		

MATH 110L COMP TUTOR REVIEW/INTM ALGEBRA

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6175	3	16.0							1	4	5	10	13.7	ORR	PT
6176	14	3.4							1	3	4	8	10.9	DAVIS	
COURSE TOTAL									2	7	9	18	24.6		

MATH 120 MATH FOR GENERAL EDUCATION

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6178		3.0	6	6	4						4	20	60.0	ORR	PT
6179	3	16.0	3	1	2	1					8	15	19.2	ORR	PT
6180		3.0	5	8	7						2	22	66.0	EMAMI	PT
6181		3.0	17	9	7		5		1		2	41	123.0	WALLER	
6182		3.0	2	3	2						5	12	36.0	EMAMI	PT
6183		3.0		1	19	3	2		1		15	41	120.0	HOMANN	PT
6184	8	6.0	1	4	3	2	2				7	19	32.9	HORNE	PT
6186		3.0		5	12	3	8				9	37	111.0	LEE	XP
6187		3.0	3	18	8		1		1		7	38	114.0	CONRAD	PT
6188		3.0	4	1	5	5	1				7	23	69.0	BURRUS	PT
6189N		3.0	7	12	5		1				4	29	87.0	LARIOS	PT
6190N	8	6.0	3	6	6	2	7				5	29	65.8	LAMBE	PT
6192N		3.0	8	4	2				1		1	16	48.0	WILLWEBER	PT
7744	4	12.0	9	1			2		3			15	41.1	ORR	PT
7745	4	12.0		1	1							2	5.5	ORR	
COURSE TOTAL			68	80	83	16	29		7		76	359	998.5		

MATH 125 STRUCTURE/CONCEPTS ELEM MATH I

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6195		4.0	3	7	10	2	1		1		9	33	132.0	LEE	
6197		4.0	3	2	1	4	1				4	15	60.0	VILLEGAS	PT
COURSE TOTAL			6	9	11	6	2		1		13	48	192.0		

MATH 126 STRUCTURE/CONCEPT ELEM MATH II

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
6199		4.0		2		2	1				6	11	44.0	LEE	
6201N		4.0	3	6	4	1	3				3	20	80.0	TAMANAHA-JUSTE	PT
COURSE TOTAL			3	8	4	3	4				9	31	124.0		

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 128 CHILDREN'S MATHEMATIC THINKING															
6202	8	3.0	5	6							4	15	15.1	PEREIRA	XP
6203N	8	3.0	3	2	4		3				5	17	16.5	TAMANAHA-JUSTE	PT
COURSE TOTAL			8	8	4		3				9	32	31.6		
MATH 150 INTRO/CMPTR PRGM/FORTRAN															
6204N		3.0	9	4			1					14	42.0	MALONEY	PT
COURSE TOTAL			9	4			1					14	42.0		
MATH 160 ELEMENTARY STATISTICS															
6205		3.0		1	5	2	1				10	19	57.0	SIBBALD	PT
6206	3	16.0	9	16	10	5	2				6	48	115.2	LINES	XP
6207		3.0	3	5	11	6	12				10	47	141.0	GREENHECK	PT
6209		3.0	2	1		3	3				9	18	54.0	CHOW	
6211		3.0	2	4	4	1	2				8	21	63.0	CHOW	
6212		3.0	2	3	4		2				9	20	60.0	SADEGHIPOUR	PT
6213		3.0	3	5	6	5	7				21	47	138.0	CHOW	
6216		3.0	4	6	7	3	5				19	44	132.0	CHOW	
6217		3.0	3	8	9	6	1				14	41	123.0	SIBBALD	PT
6218	3	16.0	22	9	9	2	2		1		5	50	123.4	WALLER	XP
6219		3.0	5	8	13		8				16	50	150.0	LINES	XP
6220		3.0	20	15	18	2	4				6	65	195.0	CURRAN	PT
6222		3.0	2	3	3	1					8	17	51.0	CHOW	
6223		3.0	12	5	3	7	1				5	33	99.0	SADLER	PT
6225		3.0	9	10	11	1	3		1		10	45	135.0	WALLER	
6226	8	6.0	2	6	5		1				1	15	38.4	GORDON	PT
6227	8	6.0	4	4	5		6				19	38	52.1	GORDON	PT
6229		3.0	12	19	6	3	4				4	48	144.0	WALLER	
6230		3.0	34	21	4							59	177.0	LAMB	PT
6231N		3.0	8	9	3	3	4				13	40	120.0	HILTON	PT
6232N		3.0	9	9	11	1	5				9	44	135.0	HAYES	PT
6234N		3.0	2	2	3		1				7	15	45.0	JOHNSON	PT
6235N		3.0	2	4	8	1	6				5	26	78.0	HAYES	PT
6237		3.0	5	8	6				1	1	12	33	99.0	PALACIOS	
6238		3.0	4	2	2	1	2				12	23	69.0	PALACIOS	
7746	4	12.0	1	1	5						1	8	19.2	WILSON	PT
COURSE TOTAL			181	184	171	53	82		3	1	239	914	2613.3		
MATH 170 ANALYTIC TRIGONOMETRY															
6243		3.0	1	2	1	4	7				13	28	84.0	LEE	
6244		3.0	5	14	9	1	1				17	47	135.0	FUNK	
6246N		3.0	15	5	15	1			1		8	45	135.0	WINN	PT
COURSE TOTAL			21	21	25	6	8		1		38	120	354.0		
MATH 175 COLLEGE ALGEBRA															
6247		4.0	11	3	4	2					7	27	108.0	SADLER	PT
6248		4.0	6	7	3	4	4				14	38	152.0	PEREIRA	
6249		4.0	8	2	6	3	6				17	42	168.0	PEREIRA	
6250		4.0	3	8	11	1	2		1		10	36	144.0	MANCHESTER	
6251		4.0	2	3	3	2	1				11	22	88.0	FUNK	
6252		4.0	5	3			2				3	13	52.0	MILLAN	XP

MATHEMATICS, NATURAL SCIENCES & PE — MATHEMATICS, NATURAL SCIENCES & PE

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 175 COLLEGE ALGEBRA (CONT"D)															
6254N		4.0	1	3	1		6				8	19	76.0	DAVIS	
6257N		4.0	9	5	6		1				11	32	128.0	LA-PLANT	PT
COURSE TOTAL			45	34	34	12	22		1		81	229	916.0		
MATH 176 PRECALCULUS: FUNCTIONS/GRAPHS															
6259		6.0	5	4	10	2					12	33	198.0	VANDEN-EYNDEN	
6261		6.0	7	7	3	2	3				6	28	168.0	WALLER	XP
6262		6.0	10	8	5	1				1	7	32	192.0	MILLAN	
6265N		6.0	6	7	3	2	3				10	31	186.0	ORR	PT
COURSE TOTAL			28	26	21	7	6			1	35	124	744.0		
MATH 178 CALCULUS-BUS-SOC & BEHAV SCI															
6266		4.0	6	1	6	2				1	7	23	84.0	MCCANN	PT
6267		4.0	11	13	13	2	2				6	47	188.0	GILES	
6268		4.0	18	5	11	3	3				10	50	200.0	CAPACIA	
6269		4.0	16	8	7	2	4		1		7	45	180.0	GILES	
6272		4.0	2	14	13	2	2				6	39	156.0	WILSON	PT
6274N		4.0	3	2	5	1					9	20	80.0	WILSON	PT
6275N		4.0	4	6	2	3	6				5	26	104.0	GOULART	PT
COURSE TOTAL			60	49	57	15	17		1	1	50	250	992.0		
MATH 180 ANALYTIC GEOMETRY & CALCULUS I															
6278		5.0	3	1		1					7	12	60.0	LA-PUMA	PT
6280		5.0	2	8	8	2	4				7	31	160.0	MANCHESTER	
6281		5.0	12	9	10	5	1				10	47	235.0	CAPACIA	XP
6282		5.0	4	7	6	3	4		1		5	30	150.0	VANDEN-EYNDEN	
6283		5.0	5	3	6	1	7				16	38	190.0	LAMBE	PT
6284N		5.0	5	1	6	1	4				9	26	130.0	DAVIS	
6285N		5.0	8	3	8	2	5				12	38	190.0	LIEBERKNECHT	PT
COURSE TOTAL			39	32	44	15	25		1		66	222	1115.0		
MATH 198 SUPERVISED TUTORING - MATH															
6289 **	16	0.0									120	120	0.0	HOVDE	
COURSE TOTAL													0.0		
MATH 245 DISCRETE MATH															
6291		3.0	4	5	10	4					2	25	75.0	VANDEN-EYNDEN	
COURSE TOTAL			4	5	10	4					2	25	75.0		
MATH 280 ANALYTIC GEOMETRY/CALCULUS II															
6292		4.0	1	5	2	2					8	18	72.0	MCCANN	PT
6294		4.0	4	7	7		7		1		20	46	184.0	LINES	XP
6295		4.0	2	4	5	3	3				8	25	100.0	PEREIRA	
6296		4.0	6	11	9	1	2				16	45	180.0	FUNK	XP
6297N		4.0	1	3	4	2	2				8	20	80.0	BURRUS	PT
COURSE TOTAL			14	30	27	8	14		1		60	154	616.0		

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	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 281 INTERMEDIATE CALCULUS															
6299		4.0	11	15	7	5	3				6	47	188.0	WORKING	
6301N		4.0	4	8	9	3					6	30	120.0	LA-PUMA	PT
COURSE TOTAL			15	23	16	8	3				12	77	308.0		
MATH 284 LINEAR ALGEBRA															
6304N		3.0	9	9	9	3	2				2	34	99.0	WALLER	
COURSE TOTAL			9	9	9	3	2				2	34	99.0		
MATH 285 DIFFERENTIAL EQUATIONS															
6306		3.0	5	7	7	1	2				9	31	93.0	FUNK	
COURSE TOTAL			5	7	7	1	2				9	31	93.0		
SUBJECT TOTAL			740	745	759	263	429		495	213	1488	5132	19489.5		

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MATHEMATICS, NATURAL SCIENCES & PE MATHEMATICS, NATURAL SCIENCES & PE

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 080 BASIC MATHEMATICS															
5895N	8	4.0							7	5	6	18	21.9	WILLIAMS	PT
5897N	8	4.0							12	9	4	25	38.4	MEDIN	PT
COURSE TOTAL									19	14	10	43	60.3		
MATH 087 STRATS SUCCESS IN MATH 080-090															
5889	8	2.0							5	7	2	14	11.0	TAMANAHA-JUSTE	PT
COURSE TOTAL									5	7	2	14	11.0		
MATH 088 BASIC MATHEMATICS/PRE-ALGEBRA															
5902		4.0							20	4	11	35	140.0	DENNEY	PT
5903		4.0							11	14	13	38	152.0	CASTILLO	PT
5904		4.0							5	3	8	16	64.0	HICKS	PT
5905		4.0							14	5	4	23	92.0	DENNEY	PT
5907		4.0							15	9	8	32	128.0	VANDEN-EYNDEN	XP
5909N		4.0							11	11	11	33	132.0	RIDGWAY	PT
5910N		4.0							11	4	8	23	84.0	OLIVAS	PT
COURSE TOTAL									87	50	63	200	792.0		
MATH 088L COMP TUTOR REVIEW/PREALGEBRA															
5911	14	3.4							3	3	2	8	16.3	PEREIRA	
COURSE TOTAL									3	3	2	8	16.3		
MATH 089 PRE-ALGEBRA FOR MATH ANXIOUS															
5914N		5.0							12	4	2	18	90.0	WILLIAMS	PT
COURSE TOTAL									12	4	2	18	90.0		
MATH 090 ELEMENTARY ALGEBRA															
5915		5.0							8	8	13	29	145.0	WILBORN	PT
5917		5.0							16	12	5	33	165.0	HICKS	PT
5919		5.0							10	11	17	38	190.0	HOMANN	PT
5920		6.0							6	10	14	30	180.0	WORKING	XP
5922		6.0							15	11	14	40	240.0	WORKING	
5924		6.0							14	16	10	40	240.0	WORKING	
5926		6.0							14	16	12	42	246.0	LINES	
5928		6.0							3	2		5	30.0	FUNK	
5930		6.0							16	7	13	36	210.0	LARIOS	PT
5932		5.0							8	18	21	47	225.0	LINES	
5933		5.0							18	17	14	49	245.0	SMITH	
5934		5.0							16	11	20	47	235.0	CURRAN	PT
5935		5.0							22	4	16	42	210.0	ORR	PT
5936		5.0							16	11	7	34	165.0	YOUNG	PT
5937		5.0							11	11	8	30	150.0	HOVDE	
5938N		5.0							18	5	11	34	170.0	WINN	PT
5939N		5.0							18	14	9	41	205.0	SMITH	
5941N		5.0							20	10	13	43	215.0	SPECKMANN	PT
5942N		5.0							15	13	6	34	170.0	DAVIS	PT
5943N		5.0							15	12	13	40	200.0	KAZZAZI	PT
5944N		5.0							19	10	11	40	200.0	MINOR	PT
5945N		5.0							12	12	18	42	205.0	RIDGWAY	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 090 ELEMENTARY ALGEBRA (CONT"D)															
COURSE TOTAL									310	241	265	816	4241.0		
MATH 090L COMP TUTOR REVIEW/ELEM ALGEBRA															
5946	14	3.4							1	16	5	22	46.2	WORKING	
COURSE TOTAL									1	16	5	22	46.2		
MATH 097 PLANE GEOMETRY															
5947		3.0							19	1	8	28	84.0	WARD	PT
5948N		3.0							8		1	9	27.0	HARDIMAN	PT
COURSE TOTAL									27	1	9	37	111.0		
MATH 103 INTERMEDIATE ALGEBRA															
5950		3.0	10	7	7	4	1			1	15	45	135.0	KMET	
5951		3.0	11	10	15	2			1		6	45	135.0	LAMB	PT
5953		3.0	16	18	8	2	7				16	67	201.0	KMET	
5954		3.0	1	3	10	10	11				9	44	129.0	LEE	
5956		3.0	3	7	2	3	5				10	30	87.0	MALONEY	PT
5957		3.0	7	16	14	2	4			1	17	61	180.0	KMET	
5958		3.0	9	8	7	2	3		1	1	23	54	162.0	KMET	
5959		3.0	12	7	12	4	6		1	1	14	57	171.0	KMET	XP
5960		3.0	13	7	6	2	7		1		12	48	144.0	KMET	
5961	8	6.0	7	3	10	5	6		1		4	36	87.8	NOBILETTE	PT
5962		3.0		3	3	6	20			1	11	44	132.0	LEE	
5964		3.0	1	4	10	6	12				9	42	126.0	LARIOS	PT
5965		3.0	2	6	6	4	5		2	1	15	41	120.0	SIBBALD	PT
5966		3.0	1	3	9	4	10				7	34	102.0	COHEN	PT
5967		3.0	2	6	2	4	12				8	34	102.0	LA-PLANT	PT
5968		3.0	2	5	9	5	3		1	2	5	32	96.0	MANCHESTER	
5969		3.0	1	5	2	6	1				15	30	84.0	SCHOONOVER	PT
5970N		3.0	3	3	3	3	11				17	40	120.0	LIEBERKNECHT	PT
5971N		3.0	2	8	8	3	1				3	25	75.0	JOHNSON	PT
5972N	8	6.0	7	2	3	2	1				3	18	41.1	KAZZAZI	PT
5973N		3.0	16	22	3	1	5				5	52	156.0	HARDIMAN	PT
5974N		3.0	1	3	4	1	2				10	21	63.0	WILSON	PT
5975		3.0	5	4	5	2	5		3		18	42	123.0	GILES	
5976		3.0	5	8	6	1	3				8	31	87.0	GILES	
COURSE TOTAL			137	168	164	84	141		11	8	260	973	2858.9		
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG															
5978		5.0	3	4	8	4	6				15	40	200.0	SAFAEE	PT
5979		5.0	7	5	4		16				6	38	190.0	JARJEES	PT
5980		5.0	2	4	14	7					10	37	180.0	LA-PUMA	PT
5981		5.0	5	11	15	1	1				3	36	180.0	EMAMI	PT
5983		6.0	5	8	8	4	14				4	43	258.0	CAPACIA	XP
5984		6.0	5	7	11	3	6		1	1	5	39	234.0	CAPACIA	
5985		6.0	8	5	6	3	5		1		1	29	174.0	CAPACIA	
5986		6.0			1							1	6.0	LINES	
5987N		5.0	1	5	2	1	2				17	28	140.0	ORR	PT
5988		5.0	5	9	6	5	6		1		22	54	270.0	PEREIRA	XP
5989		5.0	2	7	10	5	17				9	50	245.0	COHEN	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG (CONT"D)															
5990		5.0	11	8	11	8	10				6	54	270.0	WALLER	XP
5991		5.0	7	5	7	5	3		1		16	44	220.0	NOBILETTE	PT
5992		5.0	4	7	2	5	12		1		14	45	225.0	LINES	
5993		5.0		3	3	1	8		1	1	27	44	215.0	BROWN	PT
5995N		5.0	1	4	4	3	6				17	35	170.0	FLOWERS	PT
5996N		5.0	5	5	7	3	5				13	38	190.0	LA-PLANT	PT
5997N		5.0	3	4	8	4	4				13	36	180.0	WILSON	PT
5998N		5.0	2	3	8	4	4				15	36	180.0	GOULART	PT
5999N		5.0	2	3	3	7	7				10	32	155.0	LIEBERKNECHT	PT
6000N		5.0	3	7	12	2	2		2		10	38	190.0	WILLWEBER	PT
COURSE TOTAL			81	114	150	75	134		8	2	233	797	4072.0		
MATH 110L COMP TUTOR REVIEW/INTM ALGEBRA															
6001	14	3.4							1	6	3	10	19.0	DAVIS	
COURSE TOTAL									1	6	3	10	19.0		
MATH 120 MATH FOR GENERAL EDUCATION															
6002		3.0	17	10	6	1	4				2	40	120.0	WARD	PT
6003		3.0	3	2	3	1	3				3	15	45.0	REYNOLDS	PT
6004		3.0	14	15	9		8				3	49	147.0	WALLER	
6005		3.0	3		1		1				2	7	18.0	EMAMI	PT
6006		3.0	1	4	9	6	9		1		10	40	120.0	HOMANN	PT
6007	8	6.0	5	6	4	2	1				4	22	49.4	ORR	PT
6008		3.0	4	6	7	4	1				3	25	75.0	GORDON	PT
6010		3.0	1	4	14	5	8		2		4	38	114.0	LEE	XP
6011		3.0	3	4	4		3				5	19	57.0	BARRY	PT
6012N		3.0	9	16	10		1				2	38	111.0	WILLWEBER	PT
6013N	8	6.0	2	5	14	6	2				1	30	79.5	SAFAEE	PT
6014N		3.0	1	2	3		3				4	13	39.0	JOHNSON	PT
COURSE TOTAL			63	74	84	25	44		3		43	336	974.9		
MATH 125 STRUCTURE/CONCEPTS ELEM MATH I															
6015		4.0	2	5	12	5	7				3	34	136.0	LEE	
6016		4.0	2	5	6	1	6				6	26	100.0	BARRY	PT
6017N		4.0	7	4		1	1					13	52.0	TAMANAHA-JUSTE	PT
COURSE TOTAL			11	14	18	7	14				9	73	288.0		
MATH 126 STRUCTURE/CONCEPT ELEM MATH II															
6018		4.0		1	5	2	2					10	40.0	LEE	
6019		4.0	2	4	3						3	12	48.0	VILLEGAS	PT
COURSE TOTAL			2	5	8	2	2				3	22	88.0		
MATH 128 CHILDREN'S MATHEMATIC THINKING															
6020	8	3.0	14	1			1				3	19	21.9	PEREIRA	
6021N	8	3.0	9	2		1	1				3	16	17.8	TAMANAHA-JUSTE	PT
COURSE TOTAL			23	3		1	2				6	35	39.7		
MATH 150 INTRO/CMPTR PRGM/FORTRAN															
6022N		3.0	13	2							4	19	57.0	MALONEY	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 150 INTRO/CMPTR PRGM/FORTRAN (CONT"D)															
COURSE TOTAL			13	2							4	19	57.0		
MATH 160 ELEMENTARY STATISTICS															
6009		3.0	3	9	10	5	12				6	45	135.0	GREENHECK	PT
6023		3.0	4	12	11	2	4				11	44	132.0	CAPACIA	
6024		3.0	5	6	11	5	5				12	44	132.0	WILBORN	PT
6025		3.0	4	3	1		2				15	25	75.0	CHOW	
6026		3.0	2	6	4	3	3				6	24	72.0	SADEGHIPOUR	PT
6027		3.0	5	4	6		4				24	43	129.0	PHILLIPS	PT
6028		3.0	7	7	5	2	2				17	40	111.0	CHOW	
6029		3.0	16	17	12	2	2				4	53	159.0	GILES	
6030		3.0	11	10	5	1	4				6	37	111.0	PALACIOS	
6031		3.0	15	20	7	2	5				7	56	168.0	GILES	
6032		3.0	11	18	8	3	6				9	55	165.0	WALLER	
6033		3.0	6	1	3	2	4				9	25	75.0	PILIPETS	PT
6034		3.0	2	11	17	14	11				7	62	186.0	MANCHESTER	
6035	8	6.0	30	15							3	48	123.4	LAMB	PT
6036	8	6.0	24	17	12							53	145.4	LAMB	PT
6037		3.0	1	4	8	5	4			1	3	26	78.0	SIBBALD	PT
6038		3.0	3	2	7		1		1		8	22	66.0	GORDON	PT
6039N		3.0	2	8	9	1	8				12	40	120.0	MINOR	PT
6040N		3.0	12	6	8	3	6				11	46	138.0	WALLER	
6041N		3.0	6	7	1	4					6	24	72.0	SADLER	PT
6042N		3.0	7	7	3	2	3				15	37	111.0	HILTON	PT
6043		3.0	7	6	2	1	2		1		12	31	90.0	PALACIOS	
6044		3.0	2	6	5	2	5				20	40	117.0	PALACIOS	
COURSE TOTAL			185	202	155	59	93		2	1	223	920	2710.8		
MATH 170 ANALYTIC TRIGONOMETRY															
6046		3.0	6	1	1		1				4	13	39.0	FUNK	
6047		3.0	11	8	4	4	7		1		11	46	138.0	CURRAN	PT
6048		3.0	2	3	6		7		1		6	25	75.0	CONNER	PT
6049N		3.0		9	8	4	1				9	31	93.0	WINN	PT
COURSE TOTAL			19	21	19	8	16		2		30	115	345.0		
MATH 175 COLLEGE ALGEBRA															
6050		4.0	3	2	2	1	3				9	20	76.0	MCCANN	PT
6051		4.0	3	4	17	11	5				4	44	176.0	ARJOMANDI	PT
6052		4.0	3	1	4	4	8				14	34	136.0	VILLEGAS	PT
6053		4.0	3		2	4	3		1	1	4	18	72.0	BURRUS	PT
6054		4.0	7	5	4	3	4		1	1	12	37	144.0	MILLAN	XP
6055N		4.0	4	5	4	1	2				10	26	104.0	HILTON	PT
6056		4.0	2	9	7	3	3				18	42	164.0	PEREIRA	XP
6057N		4.0	1	3		1	9		1		5	20	76.0	DAVIS	
COURSE TOTAL			26	29	40	28	37		3	2	76	241	948.0		
MATH 176 PRECALCULUS: FUNCTIONS/GRAPHS															
6058		6.0	3	6	8	1	11				14	43	258.0	LINES	XP
6059		6.0	6	8	13	2	4				10	43	258.0	HOVDE	
6060		6.0	9	10	7	3	6				9	44	264.0	MILLAN	

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 176 PRECALCULUS: FUNCTIONS/GRAPHS (CONT"D)															
6061N		6.0	8	12	8	1	7				7	43	258.0	MONARRES	PT
COURSE TOTAL			26	36	36	7	28				40	173	1038.0		
MATH 178 CALCULUS-BUS-SOC & BEHAV SCI															
6062		4.0	2	14	9	8	5				6	44	176.0	MANCHESTER	
6063		4.0	5	6	5	4	11				13	44	176.0	PALACIOS	
6064		4.0	16	6	15	3	1				1	42	168.0	GILES	
6065		4.0	13	15	7	1	1				7	44	176.0	GILES	
6066		4.0	4	11	9	8	6				5	43	172.0	MANCHESTER	XP
6067		4.0	9	9	4						5	27	108.0	FUNK	
6068N		4.0		3	7		2				8	20	80.0	LAMBE	PT
6069N		4.0		3	5		1				6	15	60.0	SCHOONOVER	PT
COURSE TOTAL			49	67	61	24	27				51	279	1116.0		
MATH 180 ANALYTIC GEOMETRY & CALCULUS I															
6070		5.0	2	4	5	2	7				9	29	145.0	GREENHECK	PT
6072		5.0	6	8	5	11	6				9	45	225.0	MANCHESTER	
6074		5.0	14	8	7	1	4				8	42	210.0	MILLAN	
6076		5.0	12	4	5	3	3				7	34	170.0	VANDEN-EYNDEN	
6077		5.0	3	10	7	8	1				15	44	215.0	LAMBE	PT
6078N		5.0	2	3	8	1	6				13	33	165.0	DAVIS	
6079N		5.0	10	4	7	3	4				8	36	180.0	SADLER	PT
COURSE TOTAL			49	41	44	29	31				69	263	1310.0		
MATH 198 SUPERVISED TUTORING - MATH															
6081 **	17	0.0									127	127	0.0	CAPACIA	
COURSE TOTAL													0.0		
MATH 245 DISCRETE MATH															
6082N		3.0	6	3	3	1	1			1	2	17	51.0	SNIDER	PT
COURSE TOTAL			6	3	3	1	1			1	2	17	51.0		
MATH 280 ANALYTIC GEOMETRY/CALCULUS II															
6083		4.0	1		2	2	1				5	11	44.0	HIGGINS	PT
6084		4.0	14	8	5	1	7				12	47	188.0	MILLAN	
6085		4.0	6	1	9	2	6				8	32	128.0	PEREIRA	
6086		4.0	3	7	10		5				6	31	124.0	FUNK	XP
6087N		4.0	2	4	4	4	4				3	21	84.0	BURRUS	PT
COURSE TOTAL			26	20	30	9	23				34	142	568.0		
MATH 281 INTERMEDIATE CALCULUS															
6088		4.0		5	2	7	8				6	28	112.0	LEE	XP
6089N		4.0	12	11	7	1					7	38	152.0	LA-FUMA	PT
COURSE TOTAL			12	16	9	8	8				13	66	264.0		
MATH 284 LINEAR ALGEBRA															
6090		3.0	8	9	3		2				8	30	90.0	FUNK	

** CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

Spring 2008

MATHEMATICS, NATURAL SCIENCES & PE

MATHEMATICS, NATURAL SCIENCES & PE

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 080 BASIC MATHEMATICS															
6070	8	4.0							4	3	8	15	12.8	REYNOLDS	PT
6071	8	4.0							13	11	3	27	43.9	WILLIAMS	PT
COURSE TOTAL									17	14	11	42	56.7		
MATH 087 STRATS SUCCESS IN MATH 080-090															
6073	7	2.3							2	1	2	5	2.8	TAMANAHA-JUSTE	PT
COURSE TOTAL									2	1	2	5	2.8		
MATH 088 BASIC MATHEMATICS/PRE-ALGEBRA															
6075	3	21.3							10	2		12	43.8	FUNK	XP
6076		4.0							16	3	18	37	148.0	HARDIMAN	PT
6078	12	5.3							8	18	9	35	94.5	HICKS	
6079		4.0							23	8	3	34	136.0	DENNEY	PT
6080		4.0							11	10	11	32	128.0	VANDEN-EYNDEN	XP
6083N		4.0							24	2	10	36	144.0	WARD	PT
6084N		4.0							11	6	13	30	120.0	RIDGWAY	PT
COURSE TOTAL									103	49	64	216	814.3		
MATH 088L COMP TUTOR REVIEW/PREALGEBRA															
6085	3	16.0							1	1	5	7	5.5	ORR	
6086	14	3.4							4	6	2	12	27.2	PEREIRA	
COURSE TOTAL									5	7	7	19	32.7		
MATH 089 PRE-ALGEBRA FOR MATH ANXIOUS															
6088N		5.0							14	1	4	19	95.0	MINOR	PT
COURSE TOTAL									14	1	4	19	95.0		
MATH 090 ELEMENTARY ALGEBRA															
6090		5.0							7	5	8	20	100.0	GREENHECK	PT
6091		5.0							10	11	11	32	160.0	HICKS	PT
6092		5.0							21	7	14	42	210.0	HARDIMAN	PT
6093		6.0							4	7	3	14	84.0	WORKING	
6094		6.0							17	6	10	33	192.0	WORKING	XP
6095		6.0							13	10	8	31	186.0	WORKING	XP
6096		6.0							16	12	17	45	270.0	LINES	
6098		5.0							18	12	16	46	230.0	LARIOS	PT
6099		5.0							8	4	8	20	100.0	FUNK	
6100		5.0							16	11	10	37	185.0	LINES	
6103		5.0							15	8	17	40	195.0	SMITH	XP
6104		5.0							9	12	16	37	185.0	BARRY	PT
6105		5.0							24	6	8	38	190.0	ORR	PT
6107		5.0							13	3	17	33	165.0	OLIVAS	PT
6108N		5.0							19	11	11	41	200.0	SMITH	
6109N		5.0						1	20	12	10	43	215.0	WINN	PT
6110N		5.0							11	10	7	28	140.0	LIEBERKNECHT	PT
6111N		5.0							7	11	12	30	150.0	GOULART	PT
6112N		5.0							14	8	14	36	180.0	WILLIAMS	PT
6113N		5.0							16	7	12	35	175.0	SPECKMANN	PT
6114N		5.0						2	14	5	13	34	170.0	KAZZAZI	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 090 ELEMENTARY ALGEBRA (CONT"D)															
COURSE TOTAL								3	292	178	242	715	3682.0		
MATH 090L COMP TUTOR REVIEW/ELEM ALGEBRA															
6115	3	16.0							2	2	7	11	11.0	ORR	PT
6116	14	3.4							3	9	3	15	32.6	WORKING	XP
COURSE TOTAL									5	11	10	26	43.6		
MATH 097 PLANE GEOMETRY															
6119		3.0							12	3	2	17	51.0	JARJEES	PT
6120N		3.0							5	5	9	19	57.0	FLOWERS	PT
COURSE TOTAL									17	8	11	36	108.0		
MATH 103 INTERMEDIATE ALGEBRA															
6121	3	16.0	1	4	5	3	3				13	29	43.9	PHILLIPS	PT
6122		3.0	2	4	5	1	5				12	29	87.0	KMET	
6123		3.0	2	6	3	5	7				6	29	87.0	WILBORN	PT
6124		3.0	6	19	9	2				1	2	39	117.0	LAMB	PT
6125		3.0	9	5	9		3				14	40	120.0	KMET	
6126		3.0	5	10	8		6		1		12	42	126.0	KMET	
6127		3.0	4		1						6	11	33.0	MALONEY	PT
6129		3.0	4	9	9	2	9		1		21	55	162.0	KMET	
6130		3.0	10	6	11	2	5			1	12	47	141.0	KMET	
6131		3.0	11	11	9	2	2				14	49	147.0	KMET	XP
6132	3	16.0	1	5	5	7	5			1	8	32	65.8	PHILLIPS	PT
6133	8	6.0	15	14	1				2		3	35	87.8	LAMB	PT
6134		3.0	5	4	3	3	12		1	1	14	43	129.0	GREENHECK	PT
6135		3.0	9	5	6	2	2		2	1	15	42	126.0	KMET	XP
6136		3.0	2	1	1						6	10	30.0	SAFAEE	PT
6137		3.0	1	3	2	2	3				8	19	57.0	COHEN	PT
6138		3.0	2	3	3		2				11	21	63.0	PILIPETS	PT
6139		3.0	3	5	10	3	2		1		3	27	81.0	LARIOS	PT
6140		3.0	18	5	6		2				3	34	102.0	WARD	PT
6141		3.0		3	3		2				11	19	57.0	CASTILLO	PT
6142N		3.0	6	12	2	1	3	1			6	31	93.0	NOBILETTE	PT
6144N		3.0	5	3	12	7	6				12	45	135.0	MINOR	PT
6145N	8	6.0	4	4	5		1		2		3	19	43.9	DAVIS	PT
6147N		3.0	3	1	1		6				11	22	66.0	KAZZAZI	PT
6149N		3.0	1	3	5		5				12	26	69.0	WILSON	PT
6150		3.0	4	8	6	2	5			1	23	49	147.0	GILES	
6151		3.0	6	2	9	2	5		1		9	34	102.0	GILES	
COURSE TOTAL			139	155	149	46	101	1	11	6	270	878	2518.4		
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG															
6152		5.0	6	6	4		2				6	24	120.0	EMAMI	PT
6153		6.0	2	9	2	1	3				3	20	120.0	SAFAEE	PT
6154		6.0	2	2	2	2	7				13	28	156.0	HOMANN	PT
6155		5.0	1	7	2	6	1				10	27	130.0	SCHOONOVER	PT
6157		5.0	6	1	6	5	9				3	30	150.0	CAPACIA	XP
6158		5.0	4		14	3	2		1	1	11	36	180.0	CAPACIA	
6159		5.0	3	2	4	3	2			1	8	23	115.0	CAPACIA	

MATHEMATICS, NATURAL SCIENCES & PE

MATHEMATICS, NATURAL SCIENCES & PE

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 110 INTER ALG FOR MATH/BUS/SCI/ENG (CONT"D)															
6161		6.0	2	8	4	3	9			2	25	53	318.0	PEREIRA	XP
6162		5.0	6	9	18	3	16		1		15	68	335.0	CURRAN	PT
6164		5.0	4	6	10	2	13	1			5	41	205.0	WALLER	XP
6165		5.0	5	4	9	2	7			1	13	41	205.0	NOBILETTE	PT
6167		5.0	6	4	9	1	4		1		17	42	210.0	MEDIN	PT
6168		6.0	2	5	5	1	6				18	37	216.0	HICKS	XP
6169		5.0	6	10	4	2	2				16	40	200.0	SALEHPOOR	PT
6170N		5.0	3	7	2	3	4				12	31	155.0	LINES	
6171N		5.0	1	6	4	4		1			3	19	95.0	LA-PLANT	PT
6172N		6.0	5	4	5	4	7		1		13	39	234.0	WILLWEBER	PT
6173N		6.0	2	1		4	7				15	29	174.0	FLOWERS	PT
6174N		6.0	2	1	8	7	14		1		5	38	228.0	RIDGWAY	PT
COURSE TOTAL			68	92	112	56	115	2	5	5	211	666	3546.0		
MATH 110L COMP TUTOR REVIEW/INTM ALGEBRA															
6175	3	16.0							1	4	2	7	13.7	ORR	
6176	14	3.4							1	6	1	8	19.0	DAVIS	
COURSE TOTAL									2	10	3	15	32.7		
MATH 120 MATH FOR GENERAL EDUCATION															
6178		3.0	7	6	4		4				3	24	72.0	REYNOLDS	PT
6179	3	16.0	16	6	5	1					5	33	76.8	ORR	PT
6180		3.0	5	4	7	2	3				5	26	78.0	SADLER	PT
6181		3.0	17	11	6	2	6		2	1	5	50	147.0	WALLER	
6182		3.0			5		4				1	10	30.0	HOMANN	PT
6183		3.0	4	4			1					9	27.0	EMAMI	PT
6184		3.0	33	14	3		3		1		4	58	174.0	DENNEY	PT
6185	8	6.0	6	9	8	6	1				4	34	82.3	ORR	PT
6186		3.0	3	6	7	5	7				12	40	120.0	LEE	
6187		3.0	1	3	6	2	1		1		9	23	69.0	GORDON	PT
6188		3.0	1	3	5						10	19	57.0	GORDON	PT
6189N		3.0	13	10	8				1		4	36	108.0	WILLWEBER	PT
6190N	8	6.0	11	9	2	2					8	32	65.8	OLIVAS	PT
6192N		3.0	3	2	3	1			1		7	17	51.0	SAFAEE	PT
COURSE TOTAL			120	87	69	21	30		6	1	77	411	1157.9		
MATH 125 STRUCTURE/CONCEPTS ELEM MATH I															
6195		4.0		5	6	3	4				3	21	80.0	LEE	
6197		4.0	5	6	11	3	7				7	39	156.0	VILLEGAS	PT
COURSE TOTAL			5	11	17	6	11				10	60	236.0		
MATH 126 STRUCTURE/CONCEPT ELEM MATH II															
6199		4.0			2	2					2	6	24.0	LEE	
6200		4.0	2	3	2	1						8	32.0	VILLEGAS	PT
6201N		4.0	3	10	7	1						21	84.0	TAMANAHA-JUSTE	PT
COURSE TOTAL			5	13	11	4					2	35	140.0		
MATH 128 CHILDREN'S MATHEMATIC THINKING															
6202	8	3.0	10	3	1		1				2	17	20.6	PEREIRA	XP
6203N	8	3.0	3	10							1	14	17.8	TAMANAHA-JUSTE	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 128 CHILDREN'S MATHEMATIC THINKING (CONT"D)															
COURSE TOTAL			13	13	1		1				3	31	38.4		
MATH 150 INTRO/CMPTR PRGM/FORTRAN															
6204N		3.0	4	3							3	10	30.0	MALONEY	PT
COURSE TOTAL			4	3							3	10	30.0		
MATH 160 ELEMENTARY STATISTICS															
6205		3.0		3	6		3	1			6	19	57.0	SIBBALD	PT
6207		3.0	6	15	14	9	3				6	53	159.0	CAPACIA	
6209		3.0	8	9	3		2				17	39	117.0	ARJOMANDI	PT
6210		3.0		1	3	2	5	1			11	23	66.0	CHOW	
6211		3.0	2	2	3		1				9	17	51.0	CHOW	
6212		3.0	6	6	1		6		1		3	23	69.0	SADEGHIPOUR	PT
6213		3.0	7	9	18	2	9				12	57	171.0	CURRAN	PT
6214	3	16.0	12	6	10	1	4		1		8	42	93.3	LINES	XP
6216		3.0	15	19	9	2	1				2	48	144.0	LAMB	PT
6217		3.0	8	18	15	3	6				1	51	153.0	GILES	
6218	3	16.0	16	12	9	2	3				9	51	115.2	WALLER	XP
6219		3.0	15	10	9	5	4				8	51	153.0	PALACIOS	
6220		3.0	13	20	13	2	3				7	58	174.0	GILES	
6222		3.0	9	13	18	3	3	1			7	54	156.0	WALLER	
6223		3.0	2	10	8	6	3				15	44	132.0	MANCHESTER	
6225		3.0	4	11	5	6	3				16	45	135.0	MANCHESTER	XP
6226	8	6.0	2	4	2		1				3	12	24.7	SIBBALD	PT
6227	8	6.0	3	5	10		9				10	37	74.1	SIBBALD	PT
6229		3.0	2	2	2	4	2				6	18	54.0	BURRUS	PT
6230		3.0	10	11	11	5	3				8	48	144.0	SADLER	PT
6231N		3.0	11	4	3	4	6				18	46	138.0	HILTON	PT
6232N		3.0	7	15	10	1	5	2			11	51	153.0	WALLER	
6234N		3.0	9	4	4		1				19	37	111.0	HILTON	PT
6235N		3.0	1	4	2	2	3				6	18	51.0	JOHNSON	PT
6237		3.0	3	3	5	5	3				21	40	114.0	PALACIOS	
6238		3.0	3	4	7	2	5				6	27	78.0	PALACIOS	
6239		3.0	5	2	3	1	1				12	24	69.0	PALACIOS	
COURSE TOTAL			179	222	203	67	98	5	2		257	1033	2956.3		
MATH 170 ANALYTIC TRIGONOMETRY															
6243		3.0	10	6	6	2	1				12	37	111.0	FUNK	
6244		3.0	3	5	9	4	6			1	11	39	117.0	VILLEGAS	PT
6246N		3.0	9	9	5	3	6				8	40	120.0	WINN	PT
COURSE TOTAL			22	20	20	9	13			1	31	116	348.0		
MATH 175 COLLEGE ALGEBRA															
6247		4.0	2	1	3	2	4				8	20	80.0	CONNER	PT
6248		4.0	4	5	7	5	4		1		17	43	168.0	HOVDE	
6249		4.0	4	7	8	2	4			1	17	43	172.0	PEREIRA	
6250		4.0	2	5	5		4		1	1	12	30	120.0	DAVIS	
6251		4.0	1	1	1	2					5	10	40.0	THOMPSON	PT
6252		4.0	10	6	5	3					13	37	148.0	MILLAN	XP
6254N		4.0	1	1			3				5	10	36.0	HANSEN	PT

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 175 COLLEGE ALGEBRA							(CONT"D)								
6257N		4.0	2	3	5		2				3	15	60.0	MONARRES	PT
COURSE TOTAL			26	29	34	14	21		2	2	80	208	824.0		
MATH 176 PRECALCULUS: FUNCTIONS/GRAPHS															
6259		6.0	2	3	4		10			1	16	36	216.0	LINES	XP
6260		6.0	14	7	7	1	2				9	40	240.0	MILLAN	
6262		6.0	2	9	8	5	3		1		15	43	258.0	HOVDE	
6263N		6.0	1	1	6	5					10	23	138.0	LA-PUMA	PT
COURSE TOTAL			19	20	25	11	15		1	1	50	142	852.0		
MATH 178 CALCULUS-BUS-SOC & BEHAV SCI															
6266		4.0	3	3	1	1	5				5	18	72.0	MCCANN	PT
6267		4.0	7	8	5						12	32	124.0	PALACIOS	
6268		4.0	9	2	6	2	1				11	31	124.0	YOUNG	PT
6269		4.0	9	10	6	2	3				13	43	172.0	GILES	
6270		4.0	12	12	5	1	5				9	44	176.0	GILES	
6271		4.0	4	4	2	1	1				6	18	72.0	HICKS	
6272		4.0	6	8	3	1	1				10	29	116.0	FUNK	
6274N		4.0	4	4	4						5	17	68.0	LAMBE	PT
6275N		4.0	3	2	2	1	1				4	13	52.0	LIEBERKNECHT	PT
COURSE TOTAL			57	53	34	9	17				75	245	976.0		
MATH 180 ANALYTIC GEOMETRY & CALCULUS I															
6278		5.0	1	4	1	2	2				6	16	80.0	MANCHESTER	
6280		5.0	3	6	8	5	5				7	34	170.0	MANCHESTER	
6281		5.0	11	12	3	5	5				8	44	220.0	MILLAN	
6282		5.0	3	8	8	1	4				6	30	150.0	VANDEN-EYNDEN	
6283		5.0	8	5	11	4	7	1			19	55	265.0	LAMBE	PT
6284N		5.0	2	3	5	5	2				14	31	155.0	DAVIS	
6285N		5.0	7	8	2	1	8				14	40	200.0	MONARRES	PT
COURSE TOTAL			35	46	38	23	33	1			74	250	1240.0		
MATH 198 SUPERVISED TUTORING - MATH															
6289 **	16	0.0									111	111	0.0	CAPACIA	
COURSE TOTAL													0.0		
MATH 245 DISCRETE MATH															
6291		3.0					1				11	12	36.0	LEE	
COURSE TOTAL							1				11	12	36.0		
MATH 280 ANALYTIC GEOMETRY/CALCULUS II															
6292		4.0	3	2	5		3	1			10	24	96.0	MCCANN	PT
6294		4.0	18	13	5		2				10	48	192.0	MILLAN	
6295		4.0	5	6	6	3	6				13	39	156.0	PEREIRA	
6296		4.0	5	13	6	2	4				5	35	140.0	FUNK	XP
6297N		4.0	3	2	2	2					9	18	72.0	BURRUS	PT
COURSE TOTAL			34	36	24	7	15	1			47	164	656.0		

** CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
MATH 281 INTERMEDIATE CALCULUS															
6299		4.0	2	2	5	3	7	1			11	31	124.0	LEE	XP
6301N		4.0	4	6	9	1					7	27	108.0	WILSON	PT
COURSE TOTAL			6	8	14	4	7	1			18	58	232.0		
MATH 284 LINEAR ALGEBRA															
6304N		3.0	4	12	4	1	4				6	31	93.0	WALLER	
COURSE TOTAL			4	12	4	1	4				6	31	93.0		
MATH 285 DIFFERENTIAL EQUATIONS															
6306		3.0	9	6	10	1					3	29	87.0	FUNK	
COURSE TOTAL			9	6	10	1					3	29	87.0		
SUBJECT TOTAL			745	826	765	279	482	14	484	295	1582	5472	20834.8		

Grade Distribution by Division
School: Grossmont College -- Term: 2008FA -- Division: G06 -- Subject: MATH -- Course: All Courses

Section N = Night ** = Not Valid for ADA	S.T. Wks	Hrs	Enrollment	A+	A	A-	B+	B	B-	C+	C	D	F	Pass	NoPass	Inc	W	Instructor	
G06 -- Mathematics Natural Sciences Ex Sci																			
MATH-080 Basic Mathematics																			
3351	8	2.0	21	0	0	0	0	0	0	0	0	0	0	18	3	0	4	Sunderman, Stuart	PT
3352	8	2.0	21	0	0	0	0	0	0	0	0	0	0	16	5	0	5	Sunderman, Stuart	PT
Course Total			42	0	0	0	0	0	0	0	0	0	0	34	8	0	9		
MATH-088 Pre-Algebra																			
3353		4.0	36	0	0	0	0	0	0	0	0	0	0	34	2	0	9	Lamb, Gary	PT
3354		4.0	28	0	0	0	0	0	0	0	0	0	0	20	8	0	15	Pereira, Shirley	XP
3356		4.0	25	0	0	0	0	0	0	0	0	0	0	11	14	0	9	Phillips, Virginia	PT
3357		4.0	15	0	0	0	0	0	0	0	0	0	0	10	5	0	9	Rieker, Joseph	PT
3358N		4.0	23	0	0	0	0	0	0	0	0	0	0	9	14	0	14	Ridgway, Rob	PT
3359N		4.0	15	0	0	0	0	0	0	0	0	0	0	5	10	0	1	Flowers, Steven	PT
Course Total			142	0	0	0	0	0	0	0	0	0	0	89	53	0	57		
MATH-088L Comp Tutor Review/Prealgebra																			
3360	14	1.0	7	0	0	0	0	0	0	0	0	0	0	5	2	0	3	Pereira, Shirley	XP
Course Total			7	0	0	0	0	0	0	0	0	0	0	5	2	0	3		
MATH-089 Pre-Algebra for Math Anxious																			
3361N		5.0	22	0	0	0	0	0	0	0	0	0	0	10	12	0	3	Flowers, Steven	PT
Course Total			22	0	0	0	0	0	0	0	0	0	0	10	12	0	3		
MATH-090 Elementary Algebra																			
3362		5.0	30	0	0	0	0	0	0	0	0	0	0	22	8	0	10	Hardiman, Richard	PT
3363		5.0	29	0	0	0	0	0	0	0	0	0	0	17	12	0	11	Capacia, Nemie	
3364		5.0	25	0	0	0	0	0	0	0	0	0	0	14	11	0	13	Wilborn, Brenda	PT

3365		5.0	27	0	0	0	0	0	0	0	0	0	0	10	17	0	10	Capacia, Nemie	
3366		5.0	28	0	0	0	0	0	0	0	0	0	0	13	15	0	11	Capacia, Nemie	
3367		5.0	32	0	0	0	0	0	0	0	0	0	0	15	17	0	6	Capacia, Nemie	
3368		5.0	35	0	0	0	0	0	0	0	0	0	0	15	20	0	6	Hicks, Shawn	
3369		5.0	9	0	0	0	0	0	0	0	0	0	0	8	1	0	6	Funk, Raymond	
3370		5.0	43	0	0	0	0	0	0	0	0	0	0	31	12	0	2	Denney, Jennifer	PT
3371		5.0	33	0	0	0	0	0	0	0	0	0	0	19	14	0	18	Pereira, Shirley	
3372		5.0	36	0	0	0	0	0	0	0	0	0	0	20	16	0	9	Hicks, Shawn	
3373		5.0	31	0	0	0	0	0	0	0	0	0	0	19	12	0	17	Orr, Michael	PT
3374		5.0	35	0	0	0	0	0	0	0	0	0	0	16	19	0	11	Lines, Michael	
3375		5.0	23	0	0	0	0	0	0	0	0	0	0	10	13	0	7	Larkin, Kathryn	PT
3376		5.0	24	0	0	0	0	0	0	0	0	0	0	15	9	0	15	Larios, Oscar	PT
3377		5.0	30	0	0	0	0	0	0	0	0	0	0	20	10	0	13	Winn, Richard	PT
3378		5.0	30	0	0	0	0	0	0	0	0	0	0	17	13	0	9	Williams, Theodore	PT
3379N		5.0	34	0	0	0	0	0	0	0	0	0	0	28	6	0	4	Ward, Mary	PT
3380N		5.0	26	0	0	0	0	0	0	0	0	0	0	15	11	0	15	Kazzazi, Tony	PT
3381N		5.0	35	0	0	0	0	0	0	0	0	0	0	27	8	0	11	Speckmann, William	PT
3382N		5.0	27	0	0	0	0	0	0	0	0	0	0	17	10	0	2	Medin, Andrew	PT
3383N		5.0	40	0	0	0	0	0	0	0	0	0	0	23	17	0	4	Maloney, James	PT
Course Total			662	0	0	0	0	0	0	0	0	0	0	391	271	0	210		
MATH-090L Comp Tutor Review/Elem Algebra																			
3384	14	1.0	9	0	0	0	0	0	0	0	0	0	0	6	3	0	3	Working, Susan	
Course Total			9	0	0	0	0	0	0	0	0	0	0	6	3	0	3		
MATH-097 Plane Geometry																			
3385		3.0	15	0	0	0	0	0	0	0	0	0	0	10	5	0	4	Orr, Michael	PT

3386N		3.0	12	0	0	0	0	0	0	0	0	0	0	8	4	0	2 La-Plant, Sandra	PT
Course Total			27	0	0	0	0	0	0	0	0	0	0	18	9	0	6	
MATH-103 Intermediate Algebra																		
3387		3.0	37	0	4	0	0	10	0	0	11	1	10	0	1	0	5 Salehpoor, Zahra	PT
3388		3.0	35	0	5	0	0	12	0	0	9	3	6	0	0	0	13 Kmet, Ann	
3389		3.0	59	0	17	0	0	11	0	0	13	2	14	0	2	0	14 Kmet, Ann	
3390		3.0	42	0	6	0	0	17	0	0	8	3	7	1	0	0	10 Kmet, Ann	
3391		3.0	20	0	5	0	0	9	0	0	4	0	1	0	1	0	3 Emami, Mohammad	PT
3392		3.0	45	0	11	0	0	7	0	0	10	10	4	2	0	0	16 Kmet, Ann	
3393		3.0	35	0	7	0	0	8	0	0	8	5	7	0	0	0	15 Kmet, Ann	
3394		3.0	44	0	8	0	0	12	0	0	13	4	4	3	0	0	12 Kmet, Ann	XP
3395		3.0	31	0	11	0	0	10	0	0	4	0	6	0	0	0	16 Kmet, Ann	XP
3396	8	3.0	39	0	8	0	0	10	0	0	11	2	7	0	1	0	4 Capacia, Nemie	XP
3397		3.0	35	0	3	0	0	11	0	0	11	9	1	0	0	0	8 La-Puma, Russell	PT
3398		3.0	34	0	7	0	0	13	0	0	8	5	1	0	0	0	8 Schoonover, Melvin	PT
3399		3.0	27	0	7	0	0	1	0	0	8	1	10	0	0	0	13 Nobilette, Kenneth	PT
3400		3.0	30	0	1	0	0	4	0	0	10	5	9	1	0	0	13 Gordon, Lance	PT
3402		3.0	24	0	3	0	0	6	0	0	6	2	7	0	0	0	3 La-Plant, Sandra	PT
3403		3.0	26	0	2	0	0	3	0	0	5	4	12	0	0	0	11 Barry, Alexis	PT
3404N		3.0	29	0	16	0	0	8	0	0	5	0	0	0	0	0	8 Sunderman, Stuart	PT
3405N		3.0	40	0	19	0	0	5	0	0	4	2	10	0	0	0	7 Minor, James	PT
3407N		3.0	25	0	4	0	0	5	0	0	5	0	11	0	0	0	7 Kazzazi, Tony	PT
3408N		3.0	25	0	2	0	0	6	0	0	13	0	4	0	0	0	4 Wilson, John	PT
3409		3.0	43	0	10	0	0	11	0	0	8	0	14	0	0	0	9 Giles, Sharon	
3410		3.0	25	0	10	0	0	5	0	0	3	2	4	1	0	0	6 Giles, Sharon	

** = Not Valid for ADA -- Not included in totals

Grade Distribution by Division
School: Grossmont College -- Term: 2008FA -- Division: G06 -- Subject: MATH -- Course: All Courses

9113	8	3.0	10	0	0	0	0	0	0	0	1	1	8	0	0	0	5	Cohen, Marina	PT
Course Total			760	0	166	0	0	184	0	0	178	61	157	8	5	0	210		
MATH-110 Inter Alg for Math/Bus/Sci/Eng																			
3411		5.0	29	0	2	0	0	6	0	0	12	7	2	0	0	0	12	Safaee, Mehdi	PT
3412		5.0	37	0	6	0	0	14	0	0	11	0	4	1	0	0	6	Emami, Mohammad	PT
3413		5.0	27	0	0	0	0	4	0	0	7	2	13	0	1	0	19	Homann, William	PT
3414		5.0	38	0	3	0	0	14	0	0	9	3	9	0	0	0	5	Hardiman, Richard	PT
3415		5.0	31	0	4	0	0	3	0	0	7	6	10	0	1	0	9	Working, Susan	
3416		5.0	27	0	2	0	0	8	0	0	9	2	6	0	0	0	14	Working, Susan	
3417		5.0	33	0	5	0	0	8	0	0	11	4	4	0	1	0	12	Working, Susan	
3419		5.0	22	0	6	0	0	5	0	0	3	5	3	0	0	0	16	Palacios, Irene	
3420		5.0	47	0	17	0	0	11	0	0	8	4	7	0	0	0	10	Millan, Arturo	
3421		5.0	39	0	3	0	0	5	0	0	15	5	11	0	0	0	15	Vanden-Eynden, Jennifer	
3422		5.0	19	0	4	0	0	5	0	0	1	4	4	0	1	0	21	Burrus, Patrick	PT
3423		5.0	40	0	12	0	0	11	0	0	6	5	6	0	0	0	16	Millan, Arturo	XP
3424		5.0	23	0	2	0	0	9	0	0	2	0	7	1	2	0	22	Smith, Elizabeth	
3425		5.0	22	0	4	0	0	2	0	0	7	2	6	1	0	0	17	Nobilette, Kenneth	PT
3426N		5.0	26	0	7	0	0	6	0	0	4	2	7	0	0	0	12	Reynolds, Briana	PT
3427N		5.0	19	0	0	0	0	1	0	0	4	2	11	0	0	0	9	Villegas, Val	PT
3428N		5.0	27	0	9	0	0	7	0	0	5	2	1	2	1	0	12	Olivas, Maria	PT
3429N		5.0	31	0	8	0	0	6	0	0	4	1	12	0	0	0	11	Monarres, David	PT
3430N		5.0	29	0	2	0	0	3	0	0	8	3	13	0	0	0	16	Ridgway, Rob	PT
3431N		5.0	32	0	8	0	0	3	0	0	14	4	3	0	0	0	12	Willweber, Sara	PT
Course Total			598	0	104	0	0	131	0	0	147	63	139	5	7	0	266		

MATH-110L Comp Tutor Review/Intm Algebra																			
3432	14	1.0	4	0	0	0	0	0	0	0	0	0	0	2	2	0	1	Davis, Stephen	
Course Total			4	0	0	0	0	0	0	0	0	0	0	2	2	0	1		
MATH-120 Math for General Education																			
3433		3.0	29	0	9	0	0	11	0	0	6	1	2	0	0	0	4	Salehpoor, Zahra	PT
3434		3.0	25	0	4	0	0	3	0	0	11	0	6	1	0	0	6	Jarjees, Thamira	PT
3435		3.0	32	0	6	0	0	3	0	0	10	4	9	0	0	0	12	Lee, Cary	
3437		3.0	27	0	12	0	0	6	0	0	7	0	2	0	0	0	9	Waller, John	
3438	8	3.0	35	0	11	0	0	10	0	0	6	3	5	0	0	0	3	Capacia, Nemie	
3439		3.0	33	0	2	0	0	3	0	0	13	2	12	0	0	0	6	Lee, Cary	
3441		3.0	32	0	1	0	0	8	0	0	7	5	10	0	1	0	11	Lee, Cary	
3442		3.0	32	0	11	0	0	10	0	0	11	0	0	0	0	0	2	Ward, Mary	PT
3443N		3.0	29	0	8	0	0	13	0	0	3	1	3	1	0	0	1	Willweber, Sara	PT
3444N	8	3.0	10	0	2	0	0	1	0	0	6	0	1	0	0	0	1	Young, Shin	PT
Course Total			284	0	66	0	0	68	0	0	80	16	50	2	1	0	55		
MATH-125 Structure/Concepts Elem Math I																			
3446		3.0	21	0	2	0	0	3	0	0	9	0	7	0	0	0	4	Lee, Cary	XP
3447		3.0	22	0	8	0	0	12	0	0	2	0	0	0	0	0	0	Reynolds, Briana	PT
3448N		3.0	29	0	8	0	0	9	0	0	6	3	3	0	0	0	8	Tamanaha-Justeson, Debora	PT
Course Total			72	0	18	0	0	24	0	0	17	3	10	0	0	0	12		
MATH-126 Structure/Concept Elem Math II																			
3449		3.0	7	0	0	0	0	4	0	0	1	0	2	0	0	0	0	Lee, Cary	
3450		3.0	13	0	4	0	0	3	0	0	4	2	0	0	0	0	5	Villegas, Val	PT
Course Total			20	0	4	0	0	7	0	0	5	2	2	0	0	0	5		

MATH-128 Children's Mathematic Thinking																		
3451	8	1.5	22	0	9	0	0	5	0	0	4	1	2	0	1	0	8	Tamanaha-Justeson, Debora	PT
3452N	8	1.5	15	0	8	0	0	5	0	0	2	0	0	0	0	0	2	Tamanaha-Justeson, Debora	PT
Course Total			37	0	17	0	0	10	0	0	6	1	2	0	1	0	10		
MATH-150 Intro Comp Program Application																			
3453N		3.0	10	0	4	0	0	4	0	0	2	0	0	0	0	0	0	Maloney, James	PT
Course Total			10	0	4	0	0	4	0	0	2	0	0	0	0	0	0		
MATH-160 Elementary Statistics																			
3440		3.0	28	0	1	0	0	9	0	0	5	3	9	0	1	0	14	Larkin, Kathryn	PT
3454		3.0	47	0	10	0	0	19	0	0	11	1	5	1	0	0	11	Waller, John	
3455		3.0	38	0	4	0	0	7	0	0	10	11	6	0	0	0	8	Greenheck, Daniel	PT
3456		3.0	14	0	3	0	0	2	0	0	3	1	5	0	0	0	6	Chow, Bob	
3457		3.0	11	0	2	0	0	2	0	0	6	0	1	0	0	0	9	Sadeghipour, Farid	PT
3458		3.0	56	0	16	0	0	19	0	0	15	1	5	0	0	0	7	Curran, Thomas	PT
3459		3.0	12	0	1	0	0	2	0	0	1	2	6	0	0	0	5	Chow, Bob	
3460		3.0	35	0	4	0	0	3	0	0	11	7	9	0	1	0	15	Greenheck, Daniel	PT
3461		3.0	34	0	7	0	0	10	0	0	10	4	2	1	0	0	7	Larios, Oscar	PT
3462		3.0	42	0	5	0	0	10	0	0	13	3	10	0	1	0	15	Manchester, Corey	
3463		3.0	32	0	6	0	0	13	0	0	6	2	5	0	0	0	14	Palacios, Irene	
3464		3.0	21	0	2	0	0	6	0	0	8	3	2	0	0	0	17	Safaee, Mehdi	PT
3465		3.0	37	0	3	0	0	8	0	0	7	5	14	0	0	0	14	Manchester, Corey	
3466	8	3.0	13	0	0	0	0	2	0	0	8	3	0	0	0	0	2	Sibbald, Eugene	PT
3467	8	3.0	27	0	4	0	0	6	0	0	10	4	3	0	0	0	7	Sibbald, Eugene	PT
3468		3.0	45	0	16	0	0	11	0	0	13	4	0	0	1	0	10	Waller, John	

3469	3.0	22	0	2	0	0	4	0	0	11	3	2	0	0	0	12	Gordon, Lance	PT
3470N	3.0	17	0	3	0	0	4	0	0	7	2	1	0	0	0	4	Sibbald, Eugene	PT
3471N	3.0	25	0	4	0	0	2	0	0	11	5	3	0	0	0	8	Johnson, Lee	PT
3472N	3.0	37	0	13	0	0	9	0	0	9	1	5	0	0	0	8	Sadler, Bivin	PT
3473N	3.0	28	0	8	0	0	8	0	0	6	1	5	0	0	0	13	Hilton, Christina	PT
3474	3.0	18	0	2	0	0	2	0	0	4	4	6	0	0	0	11	Palacios, Irene	
3475	3.0	16	0	2	0	0	4	0	0	4	3	3	0	0	0	15	Palacios, Irene	
4681	3.0	21	0	2	0	0	6	0	0	6	2	3	0	1	0	11	Palacios, Irene	
Course Total		676	0	120	0	0	168	0	0	195	75	110	2	5	0	243		
MATH-170 Analytic Trigonometry																		
3476	3.0	5	0	0	0	0	0	0	0	0	1	4	0	0	0	3	Lee, Cary	
3477	3.0	18	0	1	0	0	3	0	0	5	1	6	0	0	0	9	Lines, Michael	
3478	3.0	16	0	2	0	0	3	0	0	4	2	5	0	0	0	4	McCann, Michael	PT
3479N	3.0	22	0	4	0	0	9	0	0	6	0	3	0	0	0	6	Winn, Richard	PT
4680	3.0	25	0	7	0	0	10	0	0	4	1	3	0	0	0	14	Funk, Raymond	
Course Total		86	0	14	0	0	25	0	0	19	5	21	0	0	0	36		
MATH-175 College Algebra																		
3480	4.0	30	0	6	0	0	3	0	0	9	7	4	1	0	0	15	Curran, Thomas	PT
3481	4.0	32	0	10	0	0	6	0	0	12	1	2	0	0	0	13	Hovde, Margaret	
3482	4.0	26	0	4	0	0	9	0	0	8	1	4	0	0	0	10	Burrus, Patrick	PT
3483	4.0	14	0	6	0	0	4	0	0	2	1	1	0	0	0	5	Pilipets, Olga	PT
3484	4.0	22	0	9	0	0	3	0	0	6	4	0	0	0	0	8	La-Puma, Russell	PT
3485N	4.0	23	0	6	0	0	0	0	0	9	1	5	1	1	0	8	Hilton, Christina	PT
3486	4.0	31	0	1	0	0	9	0	0	9	3	9	0	0	0	14	Castillo, Elizabeth	PT
3487N	4.0	22	0	4	0	0	6	0	0	10	0	2	0	0	0	2	Minor, James	PT
Course Total		200	0	46	0	0	40	0	0	65	18	27	2	1	0	75		

MATH-176 Precalculus: Functions/Graphs																	
3488	6.0	47	0	17	0	0	11	0	0	8	3	6	2	0	0	10 Millan, Arturo	
3489	6.0	40	0	11	0	0	10	0	0	14	3	0	1	1	0	11 Hovde, Margaret	
3490	6.0	38	0	3	0	0	7	0	0	12	4	10	2	0	0	11 Lines, Michael	XP
3491	6.0	24	0	5	0	0	7	0	0	5	4	3	0	0	0	13 Wilson, John	PT
Course Total		149	0	36	0	0	35	0	0	39	14	19	5	1	0	45	
MATH-178 Calculus-Bus-Soc & Behav Sci																	
3492	4.0	42	0	10	0	0	18	0	0	13	1	0	0	0	0	1 Lamb, Gary	PT
3493	4.0	29	0	10	0	0	6	0	0	7	1	5	0	0	0	8 Palacios, Irene	
3494	4.0	22	0	5	0	0	9	0	0	4	1	3	0	0	0	4 Schoonover, Melvin	PT
3495	4.0	12	0	2	0	0	4	0	0	3	2	1	0	0	0	7 Homann, William	PT
3496	4.0	43	0	16	0	0	5	0	0	14	5	3	0	0	0	9 Waller, John	
3497	4.0	28	0	4	0	0	7	0	0	12	3	1	0	1	0	12 Lambe, Michael	PT
3498N	4.0	11	0	2	0	0	1	0	0	3	2	2	1	0	0	9 Lieberknecht, Scott	PT
Course Total		187	0	49	0	0	50	0	0	56	15	15	1	1	0	50	
MATH-180 Analytic Geometry & Calculus I																	
3500	5.0	36	0	4	0	0	7	0	0	15	4	5	0	0	0	11 Manchester, Corey	
3501	5.0	43	0	6	0	0	9	0	0	15	9	4	0	0	0	6 Manchester, Corey	
3502	5.0	22	0	5	0	0	5	0	0	4	3	5	0	0	0	17 Davis, Stephen	XP
3503	5.0	9	0	1	0	0	2	0	0	1	0	4	0	0	0	9 Davis, Stephen	
3504	5.0	36	0	5	0	0	10	0	0	13	5	3	0	0	0	14 Hicks, Shawn	
3505N	5.0	26	0	3	0	0	3	0	0	11	2	7	0	0	0	12 Lambe, Michael	PT
3506N	5.0	35	0	4	0	0	5	0	0	11	9	5	0	1	0	12 Lieberknecht, Scott	PT
Course Total		207	0	28	0	0	41	0	0	70	32	33	0	1	0	81	
MATH-198 Supervised Tutoring - Math																	
3507	.0	1462	0	0	0	0	0	0	0	0	0	0	0	0	0	0 Waller, John	

Course Total		1462	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-245 Discrete Math																		
3508N	3.0	16	0	2	0	0	10	0	0	1	2	1	0	0	0	2	Vanden-Eynden, Jennifer	
Course Total		16	0	2	0	0	10	0	0	1	2	1	0	0	0	2		
MATH-280 Analytic Geometry/Calculus II																		
3509	4.0	11	0	3	0	0	2	0	0	3	0	3	0	0	0	7	Davis, Stephen	
3510	4.0	18	0	2	0	0	4	0	0	5	1	6	0	0	0	4	Lines, Michael	
3511	4.0	41	0	20	0	0	8	0	0	10	1	1	0	0	0	6	Millan, Arturo	
3512	4.0	38	0	13	0	0	8	0	0	15	1	1	0	0	0	4	Funk, Raymond	
3513N	4.0	17	0	2	0	0	6	0	0	3	3	3	0	0	0	8	Davis, Stephen	
Course Total		125	0	40	0	0	28	0	0	36	6	14	0	0	0	29		
MATH-281 Intermediate Calculus																		
3514	4.0	40	0	9	0	0	15	0	0	12	2	2	0	0	0	4	Pereira, Shirley	
3515N	4.0	17	0	1	0	0	7	0	0	5	2	2	0	0	0	3	Hansen, Michael	PT
Course Total		57	0	10	0	0	22	0	0	17	4	4	0	0	0	7		
MATH-284 Linear Algebra																		
3516	3.0	21	0	8	0	0	6	0	0	3	2	2	0	0	0	7	Lines, Michael	
Course Total		21	0	8	0	0	6	0	0	3	2	2	0	0	0	7		
MATH-285 Differential Equations																		
3517N	3.0	22	0	7	0	0	7	0	0	4	3	1	0	0	0	5	Funk, Raymond	
Course Total		22	0	7	0	0	7	0	0	4	3	1	0	0	0	5		
Subject Total		5904	0	739	0	0	860	0	0	940	322	607	580	383	0	1430		
Division Total		5904	0	739	0	0	860	0	0	940	322	607	580	383	0	1430		

Grade Distribution by Division
School: Grossmont College -- Term: 2009SP -- Division: G06 -- Subject: MATH -- Course: All Courses

Section N = Night ** = Not Valid for ADA	S.T. Wks	Hrs	Enrollment	A+	A	A-	B+	B	B-	C+	C	D	F	Pass	NoPass	Inc	W	Instructor	
G06 -- Mathematics Natural Sciences Ex Sci																			
MATH-080 Basic Mathematics																			
7855	8	2.0	27	0	0	0	0	0	0	0	0	0	0	13	14	0	13	Barry, Alexis	PT
7856	8	2.0	21	0	0	0	0	0	0	0	0	0	0	8	12	0	24	Barry, Alexis	PT
Course Total			48	0	0	0	0	0	0	0	0	0	0	21	26	0	37		
MATH-088 Pre-Algebra																			
7858	3	4.0	17	0	0	0	0	0	0	0	0	0	0	12	5	0	3	Funk, Raymond	XP
7859		4.0	32	0	0	0	0	0	0	0	0	0	0	26	6	0	9	Hardiman, Richard	PT
7860	12	4.0	20	0	0	0	0	0	0	0	0	0	0	12	8	0	5	Pereira, Shirley	
7861		4.0	30	0	0	0	0	0	0	0	0	0	0	24	6	0	6	Ward, Mary	PT
7862		4.0	24	0	0	0	0	0	0	0	0	0	0	8	16	0	4	Cohen, Marina	PT
7863N		4.0	24	0	0	0	0	0	0	0	0	0	0	17	7	0	11	Ridgway, Rob	PT
7864N		4.0	21	0	0	0	0	0	0	0	0	0	0	9	12	0	5	Flowers, Steven	PT
Course Total			168	0	0	0	0	0	0	0	0	0	0	108	60	0	43		
MATH-088L Comp Tutor Review/Prealgebra																			
7865	3	1.0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	2	Orr, Michael	PT
7866	14	1.0	6	0	0	0	0	0	0	0	0	0	0	6	0	0	3	Pereira, Shirley	
Course Total			10	0	0	0	0	0	0	0	0	0	0	10	0	0	5		
MATH-090 Elementary Algebra																			
7868		5.0	11	0	0	0	0	0	0	0	0	0	0	5	6	0	7	Holcombe, Coryna	PT
7869		5.0	32	0	0	0	0	0	0	0	0	0	0	17	14	0	9	Orr, Michael	PT
7870		5.0	28	0	0	0	0	0	0	0	0	0	0	17	11	0	5	Safaee, Mehdi	PT
7871		5.0	22	0	0	0	0	0	0	0	0	0	0	16	6	0	9	Capacia, Nemie	

7872		5.0	18	0	0	0	0	0	0	0	0	0	0	5	13	0	10	Capacia, Nemie	
7873		5.0	14	0	0	0	0	0	0	0	0	0	0	9	5	0	8	Capacia, Nemie	XP
7874		5.0	27	0	0	0	0	0	0	0	0	0	0	8	19	0	8	Hicks, Shawn	
7875		5.0	38	0	0	0	0	0	0	0	0	0	0	24	14	0	3	Denney, Jennifer	PT
7876		5.0	10	0	0	0	0	0	0	0	0	0	0	9	1	0	8	Funk, Raymond	
7877		5.0	25	0	0	0	0	0	0	0	0	0	0	18	7	0	21	Pereira, Shirley	
7878		5.0	28	0	0	0	0	0	0	0	0	0	0	17	11	0	11	Hicks, Shawn	
7879		5.0	33	0	0	0	0	0	0	0	0	0	0	22	11	0	6	Ward, Mary	PT
7880		5.0	23	0	0	0	0	0	0	0	0	0	0	14	9	0	19	Lines, Michael	
7881		5.0	31	0	0	0	0	0	0	0	0	0	0	22	9	0	7	Larios, Oscar	PT
7882		5.0	29	0	0	0	0	0	0	0	0	0	0	17	12	0	8	Hilton, Christina	PT
7883		5.0	24	0	0	0	0	0	0	0	0	0	0	14	10	0	13	Winn, Richard	PT
7884N		5.0	18	0	0	0	0	0	0	0	0	0	0	13	5	0	4	Larkin, Kathryn	PT
7885N		5.0	25	0	0	0	0	0	0	0	0	0	0	15	10	0	11	Olivas, Maria	PT
7886N		5.0	32	0	0	0	0	0	0	0	0	0	0	18	14	0	5	Speckmann, William	PT
7887N		5.0	20	0	0	0	0	0	0	0	0	0	0	9	11	0	5	Maloney, James	PT
7888N		5.0	17	0	0	0	0	0	0	0	0	0	0	9	8	0	8	Flowers, Steven	PT
Course Total			505	0	0	0	0	0	0	0	0	0	0	298	206	0	185		
MATH-090L Comp Tutor Review/Elem Algebra																			
7889	3	1.0	3	0	0	0	0	0	0	0	0	0	0	2	1	0	5	Orr, Michael	PT
7890	14	1.0	7	0	0	0	0	0	0	0	0	0	0	5	2	0	4	Working, Susan	
Course Total			10	0	0	0	0	0	0	0	0	0	0	7	3	0	9		
MATH-097 Plane Geometry																			
7891		3.0	24	0	0	0	0	0	0	0	0	0	0	16	8	0	6	Orr, Michael	PT
7892N		3.0	13	0	0	0	0	0	0	0	0	0	0	13	0	0	3	La-Plant, Sandra	PT
Course Total			37	0	0	0	0	0	0	0	0	0	0	29	8	0	9		

 ** = Not Valid for ADA -- Not included in totals

MATH-103 Intermediate Algebra

7893	3	3.0	38	0	2	0	0	8	0	0	12	6	9	1	0	0	10 Jarjees, Thamira	PT
7894		3.0	25	0	7	0	0	4	0	0	4	2	7	1	0	0	10 Kmet, Ann	XP
7896		3.0	21	0	3	0	0	3	0	0	3	4	8	0	0	0	9 Castillo, Elizabeth	PT
7897		3.0	36	0	5	0	0	15	0	0	4	4	8	0	0	0	9 Kmet, Ann	XP
7898		3.0	25	0	2	0	0	7	0	0	10	2	4	0	0	0	12 Kmet, Ann	
7900		3.0	34	0	6	0	0	11	0	0	14	1	2	0	0	0	12 Kmet, Ann	
7901		3.0	40	0	9	0	0	13	0	0	6	3	8	0	1	0	11 Kmet, Ann	
7902		3.0	31	0	8	0	0	9	0	0	6	4	4	0	0	0	16 Kmet, Ann	XP
7903	3	3.0	32	0	14	0	0	3	0	0	11	3	0	0	1	0	4 Kazzazi, Tony	PT
7905		3.0	60	0	15	0	0	26	0	0	17	0	1	1	0	0	2 Lamb, Gary	PT
7906		3.0	39	0	11	0	0	10	0	0	7	6	4	1	0	0	10 Kmet, Ann	XP
7907		3.0	25	0	2	0	0	6	0	0	12	3	2	0	0	0	4 Safaee, Mehdi	PT
7908		3.0	23	0	0	0	0	3	0	0	3	4	12	1	0	0	10 Barry, Alexis	PT
7909		3.0	17	0	1	0	0	2	0	0	6	1	7	0	0	0	5 Nobilette, Kenneth	PT
7911		3.0	22	0	3	0	0	5	0	0	6	4	4	0	0	0	4 La-Plant, Sandra	PT
7912		3.0	13	0	0	0	0	0	0	0	2	5	5	0	1	0	8 Arjomandi, Farshid	PT
7913N		3.0	18	0	2	0	0	7	0	0	7	0	2	0	0	0	2 Salehpoor, Zahra	PT
7914N		3.0	32	0	12	0	0	10	0	0	5	0	3	2	0	0	2 Minor, James	PT
7915N	8	3.0	25	0	11	0	0	3	0	0	6	1	4	0	0	0	4 Kazzazi, Tony	PT
7916N		3.0	19	0	4	0	0	3	0	0	3	2	7	0	0	0	6 Holcombe, Coryna	PT
7917N		3.0	17	0	4	0	0	5	0	0	3	1	4	0	0	0	4 Olivas, Maria	PT
7918		3.0	41	0	11	0	0	7	0	0	9	4	10	0	0	0	12 Giles, Sharon	
7919		3.0	23	0	4	0	0	4	0	0	3	2	10	0	0	0	7 Giles, Sharon	
8901		3.0	29	0	5	0	0	10	0	0	3	5	6	0	0	0	6 Giles, Sharon	
Course Total			685	0	141	0	0	174	0	0	162	67	131	7	3	0	179	

MATH-110 Inter Alg for Math/Bus/Sci/Eng

7920		5.0	19	0	4	0	0	6	0	0	7	0	1	0	0	0	3	Emami, Mohammad	PT
7921		5.0	20	0	4	0	0	9	0	0	4	1	2	0	0	0	2	Schoonover, Melvin	PT
7922		5.0	10	0	1	0	0	0	0	0	2	0	7	0	0	0	12	Homann, William	PT
7923		5.0	27	0	3	0	0	12	0	0	5	2	5	0	0	0	4	Hardiman, Richard	PT
7924		5.0	12	0	5	0	0	2	0	0	2	1	2	0	0	0	8	Working, Susan	
7925		5.0	20	0	3	0	0	8	0	0	4	0	5	0	0	0	20	Working, Susan	
7926		5.0	16	0	2	0	0	3	0	0	5	2	4	0	0	0	17	Working, Susan	
7927		5.0	44	0	16	0	0	5	0	0	12	0	8	1	2	0	12	Millan, Arturo	
7928		5.0	18	0	7	0	0	0	0	0	5	2	3	0	1	0	21	Kazzazi, Tony	PT
7929		5.0	34	0	2	0	0	3	0	0	4	3	22	0	0	0	15	Ridgway, Rob	PT
7930		5.0	29	0	6	0	0	6	0	0	6	2	7	2	0	0	13	Millan, Arturo	XP
7931		5.0	21	0	0	0	0	4	0	0	7	3	6	0	1	0	21	Smith, Elizabeth	
7932		5.0	25	0	7	0	0	7	0	0	4	2	5	0	0	0	4	Williams, Theodore	PT
7933		5.0	12	0	2	0	0	0	0	0	6	0	4	0	0	0	6	Nobilette, Kenneth	PT
7934N		5.0	19	0	1	0	0	3	0	0	11	1	3	0	0	0	2	Reynolds, Briana	PT
7935N		5.0	32	0	22	0	0	2	0	0	2	2	4	0	0	0	8	Sunderman, Stuart	PT
7936N		5.0	32	0	6	0	0	9	0	0	8	3	6	0	0	0	12	Willweber, Sara	PT
7937N		5.0	24	0	4	0	0	5	0	0	4	1	10	0	0	0	8	Nadalet, Silvia	PT
7938N		5.0	27	0	4	0	0	7	0	0	4	3	7	0	1	0	11	Villegas, Val	PT
8915		5.0	15	0	3	0	0	1	0	0	6	0	5	0	0	0	12	Palacios, Irene	
Course Total			456	0	102	0	0	92	0	0	108	28	116	3	5	0	211		

MATH-110L Comp Tutor Review/Intm Algebra

7939	3	1.0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	2	Orr, Michael	PT
7940	14	1.0	5	0	0	0	0	0	0	0	0	0	0	1	4	0	1	Vanden-Eynden, Jennifer	

Course Total			8	0	0	0	0	0	0	0	0	0	0	1	7	0	3		
MATH-120 Math for General Education																			
7941		3.0	18	0	5	0	0	6	0	0	5	1	1	0	0	0	4	Schoonover, Melvin	PT
7942	3	3.0	29	0	18	0	0	5	0	0	4	1	1	0	0	0	6	Orr, Michael	PT
7943		3.0	31	0	13	0	0	17	0	0	0	0	1	0	0	0	0	Salehpoor, Zahra	PT
7944		3.0	32	0	3	0	0	7	0	0	10	4	7	0	1	0	8	Lee, Cary	
7945		3.0	37	0	12	0	0	11	0	0	4	0	6	4	0	0	3	Denney, Jennifer	PT
7947		3.0	29	0	8	0	0	9	0	0	9	2	1	0	0	0	1	Waller, John	
7948	8	3.0	21	0	4	0	0	10	0	0	3	0	4	0	0	0	1	Castillo, Elizabeth	PT
7949		3.0	29	0	3	0	0	5	0	0	6	6	9	0	0	0	9	Lee, Cary	
7950		3.0	21	0	0	0	0	6	0	0	9	5	1	0	0	0	5	Lee, Cary	
7951		3.0	32	0	8	0	0	13	0	0	3	3	3	2	0	0	5	Reynolds, Briana	PT
7952N		3.0	28	0	10	0	0	9	0	0	4	2	2	0	0	0	1	Willweber, Sara	PT
7953N	8	3.0	29	0	4	0	0	4	0	0	12	0	8	1	0	0	4	Jarjees, Thamira	PT
7954N		3.0	34	0	34	0	0	0	0	0	0	0	0	0	0	0	6	Sunderman, Stuart	PT
Course Total			370	0	122	0	0	102	0	0	69	24	44	7	1	0	53		
MATH-125 Structure/Concepts Elem Math I																			
7955		3.0	13	0	2	0	0	2	0	0	7	1	1	0	0	0	10	Lee, Cary	
7956N		3.0	29	0	9	0	0	11	0	0	4	1	4	0	0	0	4	Tamanaha-Justeson, Debora	PT
Course Total			42	0	11	0	0	13	0	0	11	2	5	0	0	0	14		
MATH-126 Structure/Concept Elem Math II																			
7957		3.0	9	0	0	0	0	2	0	0	4	2	1	0	0	0	5	Lee, Cary	
7959N		3.0	25	0	6	0	0	7	0	0	9	3	0	0	0	0	3	Villegas, Val	PT
Course Total			34	0	6	0	0	9	0	0	13	5	1	0	0	0	8		

MATH-128 Children's Mathematic Thinking

7960	8	1.5	28	0	15	0	0	7	0	0	2	1	3	0	0	0	6 Tamanaha-Justeson, Debora	PT
7961N	8	1.5	12	0	6	0	0	1	0	0	1	0	4	0	0	0	6 Tamanaha-Justeson, Debora	PT
Course Total			40	0	21	0	0	8	0	0	3	1	7	0	0	0	12	

MATH-160 Elementary Statistics

7963		3.0	41	0	12	0	0	14	0	0	11	2	2	0	0	0	8 Curran, Thomas	PT
7964		3.0	52	0	10	0	0	16	0	0	16	1	9	0	0	0	7 Waller, John	
7965		3.0	64	0	9	0	0	30	0	0	22	1	1	0	0	0	4 Lamb, Gary	PT
7966		3.0	10	0	1	0	0	3	0	0	2	0	4	0	0	0	8 Chow, Bob	
7967		3.0	9	0	2	0	0	2	0	0	3	0	2	0	0	0	6 Chow, Bob	
7968		3.0	27	0	8	0	0	3	0	0	7	3	6	0	0	0	8 Sadeghipour, Farid	PT
7969		3.0	62	0	23	0	0	33	0	0	4	1	1	0	0	0	1 Lamb, Gary	PT
7970	3	3.0	59	0	16	0	0	28	0	0	11	4	0	0	0	0	8 Waller, John	XP
7971		3.0	25	0	4	0	0	5	0	0	5	6	5	0	0	0	17 Burrus, Patrick	PT
7972		3.0	40	0	4	0	0	16	0	0	7	3	10	0	0	0	13 Lines, Michael	XP
7973	3	3.0	47	0	7	0	0	23	0	0	10	4	3	0	0	0	5 Safaee, Mehdi	PT
7974		3.0	48	0	14	0	0	18	0	0	6	5	3	0	2	0	7 Waller, John	
7975		3.0	55	0	8	0	0	17	0	0	13	5	11	0	0	0	5 Manchester, Corey	XP
7976		3.0	29	0	4	0	0	12	0	0	8	1	4	0	0	0	15 Larios, Oscar	PT
7977		3.0	27	0	13	0	0	7	0	0	1	2	4	0	0	0	12 Pilipets, Olga	PT
7978		3.0	32	0	12	0	0	7	0	0	2	6	5	0	0	0	15 Manchester, Corey	
7979	8	3.0	15	0	2	0	0	5	0	0	4	3	1	0	0	0	6 Sibbald, Eugene	PT
7980	8	3.0	22	0	3	0	0	4	0	0	7	3	5	0	0	0	19 Sibbald, Eugene	PT
7981		3.0	17	0	2	0	0	4	0	0	5	2	2	1	1	0	7 Gordon, Lance	PT

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7982	3.0	23	0	2	0	0	6	0	0	10	1	4	0	0	0	19	Phillips, Virginia	PT
7983N	3.0	22	0	3	0	0	8	0	0	6	2	3	0	0	0	7	Sibbald, Eugene	PT
7984N	3.0	19	0	4	0	0	5	0	0	8	2	0	0	0	0	5	Johnson, Lee	PT
7985N	3.0	21	0	3	0	0	3	0	0	6	3	5	1	0	0	5	Larkin, Kathryn	PT
7986N	3.0	29	0	12	0	0	6	0	0	5	1	5	0	0	0	11	Monarres, David	PT
7987	3.0	23	0	2	0	0	7	0	0	9	3	2	0	0	0	11	Palacios, Irene	
7988	3.0	21	0	8	0	0	5	0	0	4	0	4	0	0	0	11	Palacios, Irene	
7989	3.0	21	0	3	0	0	3	0	0	7	2	4	0	0	0	17	Palacios, Irene	
Course Total		860	0	191	0	0	290	0	0	199	66	105	2	3	0	257		
MATH-170 Analytic Trigonometry																		
7991	3.0	29	0	7	0	0	10	0	0	4	2	6	0	0	0	16	Lines, Michael	XP
7992N	3.0	17	0	3	0	0	6	0	0	5	0	1	1	1	0	7	Winn, Richard	PT
8916	3.0	21	0	5	0	0	8	0	0	6	0	2	0	0	0	9	Funk, Raymond	
Course Total		67	0	15	0	0	24	0	0	15	2	9	1	1	0	32		
MATH-175 College Algebra																		
7993	4.0	23	0	4	0	0	3	0	0	6	3	6	1	0	0	12	Bennett, Caroline	PT
7994	4.0	30	0	5	0	0	8	0	0	7	6	4	0	0	0	9	Hovde, Margaret	
7995	4.0	31	0	7	0	0	3	0	0	8	7	5	0	1	0	19	Curran, Thomas	PT
7996	4.0	14	0	1	0	0	5	0	0	4	0	4	0	0	0	5	Hovde, Margaret	
7997	4.0	8	0	3	0	0	2	0	0	2	0	1	0	0	0	5	McCann, Michael	PT
7998	4.0	17	0	3	0	0	5	0	0	6	1	2	0	0	0	7	Wilson, John	PT
7999N	4.0	24	0	4	0	0	8	0	0	5	2	5	0	0	0	4	Minor, James	PT
8000N	4.0	16	0	3	0	0	4	0	0	5	1	3	0	0	0	3	Lieberknecht, Scott	PT
Course Total		163	0	30	0	0	38	0	0	43	20	30	1	1	0	64		
MATH-176 Precalculus: Functions/Graphs																		
8001	6.0	37	0	10	0	0	8	0	0	5	6	6	1	0	0	10	Millan, Arturo	

8002	6.0	24	0	2	0	0	9	0	0	7	0	6	0	0	0	8 Lines, Michael	
8003	6.0	26	0	5	0	0	4	0	0	7	2	6	2	0	0	12 Burrus, Patrick	PT
8004	6.0	43	0	11	0	0	11	0	0	11	5	4	1	0	0	13 Monarres, David	PT
Course Total		130	0	28	0	0	32	0	0	30	13	22	4	0	0	43	
MATH-178 Calculus:Bus, Soc & Behav Sci																	
8005	4.0	31	0	10	0	0	9	0	0	8	2	2	0	0	0	11 Capacia, Nemie	
8006	4.0	19	0	9	0	0	2	0	0	4	3	1	0	0	0	11 McCann, Michael	PT
8007	4.0	38	0	7	0	0	12	0	0	11	3	4	0	1	0	23 Waller, John	
8008	4.0	26	0	3	0	0	7	0	0	6	5	4	1	0	0	13 Homann, William	PT
8010	4.0	42	0	10	0	0	13	0	0	11	3	5	0	0	0	7 Greenheck, Daniel	PT
8011	4.0	17	0	2	0	0	5	0	0	4	3	3	0	0	0	9 Hansen, Michael	PT
8012N	4.0	13	0	3	0	0	1	0	0	5	2	2	0	0	0	8 Wilson, John	PT
8013N	4.0	14	0	4	0	0	4	0	0	5	1	0	0	0	0	7 La-Puma, Russell	PT
Course Total		200	0	48	0	0	53	0	0	54	22	21	1	1	0	89	
MATH-180 Analytic Geometry & Calculus I																	
8014	5.0	35	0	5	0	0	12	0	0	11	2	4	0	0	0	10 Manchester, Corey	
8015	5.0	48	0	5	0	0	15	0	0	14	6	8	0	0	0	7 Manchester, Corey	
8016	5.0	23	0	6	0	0	2	0	0	5	4	6	0	0	0	8 Davis, Stephen	
8017	5.0	20	0	3	0	0	3	0	0	2	6	6	0	0	0	9 Davis, Stephen	
8018	5.0	35	0	9	0	0	12	0	0	5	2	5	1	0	0	7 Hicks, Shawn	
8019N	5.0	30	0	5	0	0	4	0	0	10	2	9	0	0	0	7 Lambe, Michael	PT
8020N	5.0	31	0	4	0	0	1	0	0	10	2	12	0	1	0	17 Lieberknecht, Scott	PT
Course Total		222	0	37	0	0	49	0	0	57	24	50	1	1	0	65	
MATH-198 Supervised Tutoring - Math																	
8021	.0	1521	0	0	0	0	0	0	0	0	0	0	0	0	0	0 Waller, John	
Course Total		1521	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

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MATH-245 Discrete Math																		
8022	3.0	12	0	1	0	0	2	0	0	7	0	2	0	0	0	4	Vanden-Eynden, Jennifer	
Course Total		12	0	1	0	0	2	0	0	7	0	2	0	0	0	4		
MATH-280 Analytic Geometry/Calculus II																		
8023	4.0	18	0	3	0	0	3	0	0	4	3	5	0	0	0	9	Davis, Stephen	
8024	4.0	15	0	5	0	0	4	0	0	3	2	1	0	0	0	10	Lines, Michael	
8025	4.0	48	0	22	0	0	17	0	0	5	4	0	0	0	0	3	Millan, Arturo	
8026	4.0	23	0	5	0	0	7	0	0	3	2	6	0	0	0	5	Funk, Raymond	
8027N	4.0	27	0	9	0	0	7	0	0	8	1	2	0	0	0	3	Greenheck, Daniel	PT
Course Total		131	0	44	0	0	38	0	0	23	12	14	0	0	0	30		
MATH-281 Intermediate Calculus																		
8028	4.0	46	0	15	0	0	6	0	0	6	2	17	0	0	0	4	Pereira, Shirley	
8029N	4.0	30	0	10	0	0	7	0	0	5	3	3	0	2	0	13	Hansen, Michael	PT
Course Total		76	0	25	0	0	13	0	0	11	5	20	0	2	0	17		
MATH-284 Linear Algebra																		
8030N	3.0	38	0	15	0	0	12	0	0	10	0	1	0	0	0	4	Funk, Raymond	
Course Total		38	0	15	0	0	12	0	0	10	0	1	0	0	0	4		
MATH-285 Differential Equations																		
8031	3.0	24	0	9	0	0	7	0	0	7	1	0	0	0	0	4	La-Puma, Russell	PT
Course Total		24	0	9	0	0	7	0	0	7	1	0	0	0	0	4		
Subject Total		5857	0	846	0	0	956	0	0	822	292	578	501	328	0	1377		
Division Total		5857	0	846	0	0	956	0	0	822	292	578	501	328	0	1377		

Grade Distribution by Division
School: Grossmont College -- Term: 2009FA -- Division: G06 -- Subject: MATH -- Course: All Courses

Section N = Night ** = Not Valid for ADA	S.T. Wks	Hrs	Enrollment	A+	A	A-	B+	B	B-	C+	C	D	F	Pass	NoPass	Inc	W	Instructor	
G06 -- Mathematics Natural Sciences Ex Sci																			
MATH-080 Basic Mathematics																			
3351	8	2.0	39	0	0	0	0	0	0	0	0	0	0	18	21	0	7	Reynolds, Briana	PT
3352	8	2.0	37	0	0	0	0	0	0	0	0	0	0	21	16	0	8	Smith, Elizabeth	
Course Total			76	0	0	0	0	0	0	0	0	0	0	39	37	0	15		
MATH-088 Pre-Algebra																			
3353		4.0	43	0	0	0	0	0	0	0	0	0	0	34	9	0	4	Denney, Jennifer	PT
3354		4.0	43	0	0	0	0	0	0	0	0	0	0	34	9	0	7	Willweber, Sara	PT
3356		4.0	24	0	0	0	0	0	0	0	0	0	0	16	8	0	15	Smith, Elizabeth	
3358N		4.0	39	0	0	0	0	0	0	0	0	0	0	29	10	0	3	Kazzazi, Tony	PT
3359N		4.0	36	0	0	0	0	0	0	0	0	0	0	24	12	0	2	Minor, James	PT
9447	6	4.0	29	0	0	0	0	0	0	0	0	0	0	23	6	0	13	Pereira, Shirley	
Course Total			214	0	0	0	0	0	0	0	0	0	0	160	54	0	44		
MATH-088L Comp Tutor Review/Prealgebra																			
3360 **	14	1.0	6	0	0	0	0	0	0	0	0	0	0	4	2	0	8	Pereira, Shirley	XP
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-090 Elementary Algebra																			
3362		5.0	33	0	0	0	0	0	0	0	0	0	0	29	4	0	8	Emami, Mohammad	PT
3363		5.0	34	0	0	0	0	0	0	0	0	0	0	11	23	0	10	Hicks, Shawn	
3364		5.0	37	0	0	0	0	0	0	0	0	0	0	18	19	0	10	Manchester, Corey	
3365		5.0	26	0	0	0	0	0	0	0	0	0	0	15	11	0	9	Capacia, Nemie	
3366		5.0	41	0	0	0	0	0	0	0	0	0	0	26	15	0	6	Capacia, Nemie	
3367		5.0	32	0	0	0	0	0	0	0	0	0	0	17	15	0	12	Capacia, Nemie	

Printed on: 9/21/2012 ** = Not Valid for ADA -- Not included in totals Page: 1

3368		5.0	48	0	0	0	0	0	0	0	0	0	0	27	21	0	7	Lines, Michael	
3369		5.0	18	0	0	0	0	0	0	0	0	0	0	10	8	0	1	Funk, Raymond	
3370		5.0	29	0	0	0	0	0	0	0	0	0	0	22	7	0	10	Larios, Oscar	PT
3371		5.0	33	0	0	0	0	0	0	0	0	0	0	23	10	0	15	Vanden-Eynden, Jennifer	
3372		5.0	38	0	0	0	0	0	0	0	0	0	0	28	10	0	11	Waller, John	
3373		5.0	46	0	0	0	0	0	0	0	0	0	0	27	19	0	8	Manchester, Corey	
3374		5.0	41	0	0	0	0	0	0	0	0	0	0	35	6	0	6	Lamb, Gary	PT
3375		5.0	42	0	0	0	0	0	0	0	0	0	0	31	11	0	4	Ward, Mary	PT
3376		5.0	21	0	0	0	0	0	0	0	0	0	0	10	11	0	16	Barry, Alexis	PT
3377		5.0	30	0	0	0	0	0	0	0	0	0	0	21	9	0	17	Williams, Theodore	PT
3378		5.0	23	0	0	0	0	0	0	0	0	0	0	15	8	0	17	Hilton, Christina	PT
3379N		5.0	32	0	0	0	0	0	0	0	0	0	0	14	18	0	12	Bennett, Caroline	PT
3380N		5.0	41	0	0	0	0	0	0	0	0	0	0	27	14	0	5	Winn, Richard	PT
3381N		5.0	41	0	0	0	0	0	0	0	0	0	0	27	14	0	9	Speckmann, William	PT
3382N		5.0	35	0	0	0	0	0	0	0	0	0	0	19	16	0	7	Minor, James	PT
3383N		5.0	25	0	0	0	0	0	0	0	0	0	0	14	11	0	13	Kazzazi, Tony	PT
9501	10	5.0	21	0	0	0	0	0	0	0	0	0	0	14	7	0	1	Pereira, Shirley	
Course Total			767	0	0	0	0	0	0	0	0	0	0	480	287	0	214		
MATH-090L Comp Tutor Review/Elem Algebra																			
3384 **	14	1.0	12	0	0	0	0	0	0	0	0	0	0	2	10	0	9	Working, Susan	
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-097 Plane Geometry																			
3385		3.0	18	0	0	0	0	0	0	0	0	0	0	13	5	0	7	Orr, Michael	PT
3386N		3.0	16	0	0	0	0	0	0	0	0	0	0	15	1	0	5	La-Plant, Sandra	PT
Course Total			34	0	0	0	0	0	0	0	0	0	0	28	6	0	12		

Grade Distribution by Division
School: Grossmont College -- Term: 2009FA -- Division: G06 -- Subject: MATH -- Course: All Courses

MATH-103 Intermediate Algebra																		
3387		3.0	43	4	9	0	3	8	0	0	6	3	10	0	0	0	8 Kmet, Ann	XP
3388		3.0	37	0	14	0	0	10	0	0	8	2	3	0	0	0	7 Salehpoor, Zahra	PT
3389		3.0	52	4	8	0	3	7	0	2	9	8	11	0	0	0	25 Kmet, Ann	XP
3390		3.0	29	0	2	0	0	9	0	0	10	1	6	1	0	0	17 Lee, Cary	
3392		3.0	45	5	12	0	1	6	0	8	11	1	1	0	0	0	12 Kmet, Ann	
3393		3.0	48	1	6	0	0	13	0	4	9	5	10	0	0	0	10 Kmet, Ann	
3394		3.0	45	1	9	0	1	10	0	2	9	6	5	0	0	0	16 Kmet, Ann	XP
3395		3.0	45	1	13	0	1	10	0	0	12	2	5	1	0	0	8 Kmet, Ann	XP
3397		3.0	41	0	15	0	0	7	0	0	12	1	6	0	0	0	7 Salehpoor, Zahra	PT
3398		3.0	45	3	7	0	5	12	0	0	9	3	5	1	0	0	10 Kmet, Ann	
3399		3.0	41	0	4	0	0	10	0	0	5	7	15	0	0	0	4 Pilipets, Olga	PT
3400		3.0	32	0	1	0	0	6	0	0	6	7	10	2	0	0	13 Larios, Oscar	PT
3402		3.0	37	0	3	2	1	3	3	2	7	5	10	0	0	0	10 La-Plant, Sandra	PT
3403		3.0	37	0	3	0	0	6	0	0	13	4	10	0	0	0	6 Wilson, John	PT
3405N		3.0	48	0	26	0	0	8	0	0	10	0	4	0	0	0	2 Ward, Mary	PT
3408N		3.0	28	1	1	1	0	3	0	2	4	2	14	0	0	0	10 Lieberknecht, Scott	PT
3409		3.0	44	2	8	0	1	8	0	4	6	3	9	0	2	0	11 Giles, Sharon	
3410		3.0	39	0	4	0	1	4	0	0	6	9	14	1	0	0	9 Giles, Sharon	
9449		3.0	26	0	7	0	2	8	0	1	3	1	3	1	0	0	1 Giles, Sharon	
9935	8	3.0	26	1	1	1	2	1	1	1	6	4	7	0	1	0	3 Greenheck, Daniel	PT
Course Total			788	23	153	4	21	149	4	26	161	74	158	7	3	0	189	
MATH-110 Inter Alg for Math/Bus/Sci/Eng																		
3411		5.0	18	0	1	0	0	0	0	0	4	3	10	0	0	0	23 Homann, William	PT
3412		5.0	44	0	7	0	0	17	0	0	9	2	8	0	1	0	7 Hardiman, Richard	PT

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3413		5.0	41	0	3	0	0	10	0	0	14	8	6	0	0	0	7	Safaee, Mehdi	PT
3414		5.0	33	3	4	1	1	3	2	0	13	5	1	0	0	0	13	Capacia, Nemie	
3415		5.0	28	2	1	0	0	2	0	0	5	4	14	0	0	0	9	Working, Susan	
3416		5.0	37	2	3	1	1	6	0	1	11	2	10	0	0	0	5	Working, Susan	
3417		5.0	35	3	2	0	0	12	0	1	8	2	7	0	0	0	5	Working, Susan	
3419		5.0	18	1	1	0	0	2	3	1	2	5	3	0	0	0	23	Palacios, Irene	
3420		5.0	40	0	2	0	0	6	0	0	17	7	8	0	0	0	14	Gordon, Lance	PT
3421		5.0	42	0	7	0	0	22	0	0	6	1	5	1	0	0	11	Greenheck, Daniel	PT
3422		5.0	39	0	5	0	3	9	2	0	7	1	12	0	0	0	15	Reynolds, Briana	PT
3423		5.0	37	0	6	0	0	7	0	0	8	5	10	0	0	0	7	Holcombe, Coryna	PT
3424		5.0	36	0	8	0	0	8	0	0	8	5	7	0	0	0	14	Orr, Michael	PT
3425		5.0	31	0	1	0	0	8	0	0	15	3	4	0	0	0	15	Larkin, Kathryn	PT
3427N		5.0	43	0	5	0	0	4	0	0	3	16	13	1	1	0	6	Ridgway, Rob	PT
3428N		5.0	33	0	5	3	0	5	2	0	8	4	6	0	0	0	7	Lieberknecht, Scott	PT
3429N		5.0	32	0	0	0	0	0	2	0	1	10	18	1	0	0	10	Jarjees, Thamira	PT
3430N		5.0	19	0	1	1	0	0	0	1	4	0	12	0	0	0	23	Flowers, Steven	PT
3431N		5.0	40	0	12	1	0	7	0	0	6	1	13	0	0	0	6	Maloney, James	PT
Course Total			646	11	74	7	5	128	11	4	149	84	167	3	2	0	220		
MATH-110L Comp Tutor Review/Intm Algebra																			
3432 **	14	1.0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	12	Working, Susan	
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-120 Math for General Education																			
3433		3.0	38	0	13	0	0	14	0	0	8	1	2	0	0	0	5	Willweber, Sara	PT
3434		3.0	42	0	5	0	0	18	0	0	14	1	4	0	0	0	4	Hardiman, Richard	PT
3435		3.0	36	0	1	0	0	4	0	0	17	5	9	0	0	0	8	Lee, Cary	

** = Not Valid for ADA -- Not included in totals

3437		3.0	53	0	30	0	0	15	0	0	6	0	0	2	0	0	1	Denney, Jennifer	PT
3438	8	3.0	33	0	7	0	0	10	0	0	5	9	1	1	0	0	4	Edwards, Chaka	PT
3439		3.0	32	0	2	0	0	6	0	0	10	4	10	0	0	0	10	Lee, Cary	
3441		3.0	39	0	5	0	0	3	0	0	17	4	10	0	0	0	4	Lee, Cary	
3442		3.0	32	0	1	0	0	7	0	0	16	5	1	1	1	0	9	Barry, Alexis	PT
3443N		3.0	40	0	7	0	0	19	0	0	11	1	2	0	0	0	4	Emami, Mohammad	PT
9934	8	3.0	9	0	8	0	0	0	0	0	0	0	1	0	0	0	11	Tarvin, James	
Course Total			354	0	79	0	0	96	0	0	104	30	40	4	1	0	60		
MATH-125 Structure/Concepts Elem Math I																			
3446		3.0	22	0	4	0	0	3	0	0	7	1	7	0	0	0	3	Lee, Cary	XP
3448N		3.0	22	0	3	2	5	2	2	2	2	3	1	0	0	0	2	Tamanaha-Justeson, Debora	PT
Course Total			44	0	7	2	5	5	2	2	9	4	8	0	0	0	5		
MATH-126 Structure/Concept Elem Math II																			
3449		3.0	14	0	1	0	0	4	0	0	4	3	2	0	0	0	5	Lee, Cary	
Course Total			14	0	1	0	0	4	0	0	4	3	2	0	0	0	5		
MATH-128 Children's Mathematic Thinking																			
3451	8	1.5	17	0	3	1	1	1	6	0	2	0	3	0	0	0	17	Tamanaha-Justeson, Debora	PT
3452N	8	1.5	20	0	4	6	3	1	2	0	1	0	3	0	0	0	4	Tamanaha-Justeson, Debora	PT
Course Total			37	0	7	7	4	2	8	0	3	0	6	0	0	0	21		
MATH-150 Intro Comp Program Apps-Math																			
3453N		3.0	14	0	6	0	0	7	0	0	0	1	0	0	0	0	2	Maloney, James	PT
Course Total			14	0	6	0	0	7	0	0	0	1	0	0	0	0	2		
MATH-160 Elementary Statistics																			
3440		3.0	37	9	3	4	4	6	4	0	5	0	2	0	0	0	9	Schoonover, Melvin	PT

3454		3.0	34	0	11	0	0	5	0	0	8	5	5	0	0	0	16 Burrus, Patrick	PT
3455		3.0	37	0	4	0	0	6	0	0	17	6	4	0	0	0	15 Safaee, Mehdi	PT
3456		3.0	37	0	5	0	0	9	0	0	5	5	13	0	0	0	13 Lines, Michael	
3457		3.0	32	0	5	0	0	6	0	0	4	8	9	0	0	0	11 Sadeghipour, Farid	PT
3458		3.0	52	0	9	0	0	19	0	0	18	1	4	1	0	0	5 Curran, Thomas	PT
3460		3.0	37	2	6	1	2	4	1	1	6	3	11	0	0	0	15 Vanden-Eynden, Jennifer	
3461		3.0	45	0	4	4	3	8	4	3	10	6	2	0	1	0	10 Waller, John	
3462		3.0	53	4	13	0	5	13	0	1	10	1	6	0	0	0	7 Giles, Sharon	
3463		3.0	60	0	11	0	0	23	0	0	18	8	0	0	0	0	2 Lamb, Gary	PT
3464		3.0	22	0	3	0	0	5	0	0	11	0	3	0	0	0	18 Homann, William	PT
3465		3.0	31	1	8	1	1	1	1	3	6	0	8	0	1	0	13 Palacios, Irene	
3467	8	3.0	22	0	4	0	0	3	0	0	6	5	3	0	1	0	12 Sibbald, Eugene	PT
3468		3.0	39	0	16	0	0	9	0	0	6	1	7	0	0	0	10 Pilipets, Olga	PT
3469		3.0	37	0	6	0	0	12	0	0	13	2	4	0	0	0	7 Holcombe, Coryna	PT
3470N		3.0	12	0	1	0	0	5	0	0	5	0	1	0	0	0	10 Sibbald, Eugene	PT
3471N		3.0	34	0	4	0	0	5	0	0	12	4	9	0	0	0	9 Johnson, Lee	PT
3473N		3.0	27	0	6	0	0	2	0	0	6	8	5	0	0	0	7 Larkin, Kathryn	PT
3474		3.0	35	2	3	3	1	8	3	2	5	5	2	1	0	0	14 Palacios, Irene	
3475		3.0	26	2	5	1	0	4	3	0	1	4	5	0	1	0	10 Palacios, Irene	
4681		3.0	21	2	2	0	1	4	0	1	4	5	2	0	0	0	15 Palacios, Irene	
Course Total			730	22	129	14	17	157	16	11	176	77	105	2	4	0	228	
MATH-170 Analytic Trigonometry																		
3477		3.0	26	0	4	0	0	3	0	0	7	4	7	0	0	0	15 Gordon, Lance	PT
3478		3.0	36	2	2	2	3	8	3	3	8	1	4	0	0	0	12 Capacia, Nemie	
3479N		3.0	29	1	1	0	1	7	0	1	9	4	5	0	0	0	14 Winn, Richard	PT

Course Total		91	3	7	2	4	18	3	4	24	9	16	0	0	0	41		
MATH-175 College Algebra																		
3480	4.0	29	0	2	0	0	4	0	0	14	6	3	0	0	0	13	Curran, Thomas	PT
3481	4.0	27	0	4	0	0	7	0	0	9	2	4	0	0	0	15	Bradley, William	PT
3482	4.0	32	0	4	0	0	7	0	0	12	3	5	1	0	0	12	Phillips, Virginia	PT
3484	4.0	27	1	4	1	2	3	1	1	8	3	3	0	0	0	8	Bennett, Caroline	PT
3486	4.0	37	0	2	0	0	0	0	0	11	7	15	0	0	0	9	Davis, Stephen	XP
3487N	4.0	38	0	10	0	0	8	0	0	11	2	7	0	0	0	3	Ridgway, Rob	PT
Course Total		190	1	26	1	2	29	1	1	65	23	37	1	0	0	60		
MATH-176 Precalculus: Functions/Graphs																		
3488	6.0	37	0	6	1	0	7	3	1	1	5	10	0	2	0	9	Hicks, Shawn	
3489	6.0	43	0	6	0	0	9	0	0	7	3	15	0	0	0	5	Lines, Michael	XP
3490	6.0	39	0	10	0	0	8	0	0	10	4	4	3	0	0	7	Millan, Arturo	
3491	6.0	26	0	7	0	2	4	0	1	7	2	1	1	0	0	21	Funk, Raymond	XP
Course Total		145	0	29	1	2	28	3	2	25	14	30	4	2	0	42		
MATH-177 Intro to Teach Secondary Math																		
9607	3.0	13	0	11	0	0	0	0	0	0	0	2	0	0	0	0	Davis, Stephen	
Course Total		13	0	11	0	0	0	0	0	0	0	2	0	0	0	0		
MATH-178 Calculus:Bus, Soc & Behav Sci																		
3492	4.0	17	3	0	5	2	1	0	3	2	0	1	0	0	0	7	Schoonover, Melvin	PT
3493	4.0	29	2	3	2	0	2	2	1	6	2	9	0	0	0	4	Greenheck, Daniel	PT
3494	4.0	37	0	12	0	0	13	0	0	9	0	3	0	0	0	12	Millan, Arturo	
3495	4.0	38	4	13	0	0	9	0	1	8	2	1	0	0	0	8	Giles, Sharon	
3496	4.0	23	0	2	0	0	8	0	0	6	1	6	0	0	0	11	Hicks, Shawn	
3497	4.0	30	0	11	0	0	12	0	0	3	0	3	1	0	0	10	Millan, Arturo	

3498N	4.0	21	0	0	0	1	5	2	0	9	3	1	0	0	0	6	Lambe, Michael	PT
Course Total		195	9	41	7	3	50	4	5	43	8	24	1	0	0	58		
MATH-180 Analytic Geometry & Calculus I																		
3500	5.0	36	0	12	0	0	12	0	0	8	2	2	0	0	0	6	Wilborn, Brenda	PT
3501	5.0	50	0	8	4	6	10	2	3	10	4	2	0	1	0	4	Manchester, Corey	
3502	5.0	41	0	5	0	0	5	0	0	14	5	12	0	0	0	11	Davis, Stephen	XP
3503	5.0	28	0	3	0	0	12	0	0	6	2	5	0	0	0	6	Davis, Stephen	
3504	5.0	31	0	7	0	2	8	0	2	8	0	3	1	0	0	20	Funk, Raymond	
3505N	5.0	45	0	11	1	4	2	2	4	10	4	7	0	0	0	10	Waller, John	
3506N	5.0	28	0	3	3	0	5	4	0	5	2	6	0	0	0	11	Lambe, Michael	PT
Course Total		259	0	49	8	12	54	8	9	61	19	37	1	1	0	68		
MATH-198 Supervised Tutoring - Math																		
3507 **	.0	1669	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Waller, John	
Course Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-280 Analytic Geometry/Calculus II																		
3509	4.0	18	0	2	0	2	5	0	0	5	3	1	0	0	0	3	La-Puma, Russell	PT
3510	4.0	41	0	17	0	0	15	0	0	5	0	4	0	0	0	9	Millan, Arturo	
3511	4.0	34	0	7	0	0	3	0	0	9	6	9	0	0	0	14	Lines, Michael	
3512	4.0	39	0	8	0	2	14	0	1	12	2	0	0	0	0	7	Funk, Raymond	
3513N	4.0	16	0	4	0	0	3	0	0	5	3	1	0	0	0	11	Burrus, Patrick	PT
Course Total		148	0	38	0	4	40	0	1	36	14	15	0	0	0	44		
MATH-281 Intermediate Calculus																		
3514	4.0	47	3	5	6	2	10	7	2	6	2	4	0	0	0	6	Pereira, Shirley	
3515N	4.0	37	7	5	5	2	5	0	1	7	3	1	1	0	0	9	Bennett, Caroline	PT
Course Total		84	10	10	11	4	15	7	3	13	5	5	1	0	0	15		

MATH-284 Linear Algebra																		
3516	3.0	23	0	5	0	0	8	0	0	8	0	2	0	0	0	2	Lines, Michael	
Course Total		23	0	5	0	0	8	0	0	8	0	2	0	0	0	2		
MATH-285 Differential Equations																		
3517N	3.0	30	0	14	0	0	11	0	0	5	0	0	0	0	0	5	La-Puma, Russell	PT
Course Total		30	0	14	0	0	11	0	0	5	0	0	0	0	0	5		
MATH-299B Adv Problem Solving Seminar																		
9673	2.0	14	0	0	0	0	0	0	0	0	0	0	13	1	0	1	Funk, Raymond	
Course Total		14	0	0	0	0	0	0	0	0	0	0	13	1	0	1		
Subject Total		4910	79	686	64	83	801	67	68	886	365	654	744	398	0	1351		
Division Total		4910	79	686	64	83	801	67	68	886	365	654	744	398	0	1351		

Grade Distribution by Division
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Section N = Night ** = Not Valid for ADA	S.T. Wks	Hrs	Enrollment	A+	A	A-	B+	B	B-	C+	C	D	F	Pass	NoPass	Inc	W	Instructor	
G06 -- Mathematics Natural Sciences Ex Sci																			
MATH-080 Basic Mathematics																			
7855	8	2.0	37	0	0	0	0	0	0	0	0	0	0	24	13	0	7	Smith, Elizabeth	
7856	8	2.0	33	0	0	0	0	0	0	0	0	0	0	29	4	0	18	Schoonover, Melvin	PT
Course Total			70	0	0	0	0	0	0	0	0	0	0	53	17	0	25		
MATH-088 Pre-Algebra																			
7859		4.0	45	0	0	0	0	0	0	0	0	0	0	34	11	0	5	Brown, Danielle	PT
7860	6	4.0	37	0	0	0	0	0	0	0	0	0	0	33	4	0	3	Denney, Jennifer	PT
7861		4.0	28	0	0	0	0	0	0	0	0	0	0	18	10	0	17	Smith, Elizabeth	
7862		4.0	37	0	0	0	0	0	0	0	0	0	0	29	8	0	6	Kazzazi, Tony	PT
7864N		4.0	27	0	0	0	0	0	0	0	0	0	0	15	12	0	7	Flowers, Steven	PT
9992	10	4.0	30	0	0	0	0	0	0	0	0	0	0	17	13	0	4	Reynolds, Briana	PT
Course Total			204	0	0	0	0	0	0	0	0	0	0	146	58	0	42		
MATH-088L Comp Tutor Review/Prealgebra																			
7866 **	14	1.0	5	0	0	0	0	0	0	0	0	0	0	4	1	0	0	Pereira, Shirley	
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-090 Elementary Algebra																			
7869		5.0	37	0	0	0	0	0	0	0	0	0	0	20	17	0	8	Hicks, Shawn	
7870		5.0	17	0	0	0	0	0	0	0	0	0	0	11	6	0	4	Manchester, Corey	
7871		5.0	20	0	0	0	0	0	0	0	0	0	0	13	7	0	5	Capacia, Nemie	XP
7872		5.0	25	0	0	0	0	0	0	0	0	0	0	17	8	0	10	Capacia, Nemie	
7873		5.0	32	0	0	0	0	0	0	0	0	0	0	20	12	0	5	Capacia, Nemie	
7874		5.0	44	0	0	0	0	0	0	0	0	0	0	15	29	0	19	Lines, Michael	

** = Not Valid for ADA -- Not included in totals

7875		5.0	48	0	0	0	0	0	0	0	0	0	0	30	18	0	8	Manchester, Corey	
7876		5.0	13	0	0	0	0	0	0	0	0	0	0	10	3	0	1	Funk, Raymond	
7877		5.0	36	0	0	0	0	0	0	0	0	0	0	21	15	0	12	Vanden-Eynden, Jennifer	
7878		5.0	50	0	0	0	0	0	0	0	0	0	0	31	19	0	4	Waller, John	
7879		5.0	33	0	0	0	0	0	0	0	0	0	0	22	11	0	6	Ward, Mary	PT
7880		5.0	36	0	0	0	0	0	0	0	0	0	0	31	5	0	8	Lamb, Gary	PT
7881		5.0	39	0	0	0	0	0	0	0	0	0	0	18	21	0	4	Ridgway, Rob	PT
7882		5.0	32	0	0	0	0	0	0	0	0	0	0	23	9	0	10	Hilton, Christina	PT
7883		5.0	28	0	0	0	0	0	0	0	0	0	0	19	9	0	10	Williams, Theodore	PT
7884N		5.0	31	0	0	0	0	0	0	0	0	0	0	17	14	0	14	Reynolds, Briana	PT
7885N		5.0	40	0	0	0	0	0	0	0	0	0	0	29	11	0	4	Winn, Richard	PT
7886N		5.0	34	0	0	0	0	0	0	0	0	0	0	16	18	0	2	Maloney, James	PT
7887N		5.0	40	0	0	0	0	0	0	0	0	0	0	25	15	0	9	Speckmann, William	PT
7888N		5.0	28	0	0	0	0	0	0	0	0	0	0	1	27	0	6	Flowers, Steven	PT
9715	10	5.0	32	0	0	0	0	0	0	0	0	0	0	21	11	0	0	Pereira, Shirley	
Course Total			695	0	0	0	0	0	0	0	0	0	0	410	285	0	149		
MATH-090L Comp Tutor Review/Elem Algebra																			
7890 **	14	1.0	4	0	0	0	0	0	0	0	0	0	0	2	2	0	4	Working, Susan	
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-097 Plane Geometry																			
7891		3.0	25	0	0	0	0	0	0	0	0	0	0	13	12	0	7	Greenheck, Daniel	PT
Course Total			25	0	0	0	0	0	0	0	0	0	0	13	12	0	7		
MATH-103 Intermediate Algebra																			
7894		3.0	34	4	7	0	0	3	0	7	7	1	5	0	0	0	11	Kmet, Ann	XP
7896		3.0	36	0	10	0	0	3	0	0	7	0	15	0	1	0	7	Hardiman, Richard	PT

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7897	3.0	46	0	11	0	0	10	0	2	12	4	7	0	0	0	6 Kmet, Ann	XP
7898	3.0	42	1	5	0	1	10	0	1	7	2	13	0	1	0	8 Kmet, Ann	
7900	3.0	42	1	10	0	1	10	0	0	7	3	9	0	1	0	12 Kmet, Ann	
7901	3.0	41	1	7	0	4	8	0	3	7	4	7	0	0	0	13 Kmet, Ann	
7902	3.0	51	2	10	0	3	14	0	1	10	3	8	0	0	0	6 Kmet, Ann	
7905	3.0	41	1	3	2	0	4	3	1	5	4	14	2	1	0	12 Capacia, Nemie	
7906	3.0	40	5	6	0	2	12	0	4	3	1	7	0	0	0	8 Kmet, Ann	
7908	3.0	34	0	1	0	0	4	0	0	8	7	14	0	0	0	13 Barry, Alexis	PT
7909	3.0	30	0	6	0	0	1	0	0	7	0	16	0	0	0	12 Manikandan, Gayathri	PT
7911	3.0	36	0	2	3	2	3	0	5	7	4	8	0	2	0	9 La-Plant, Sandra	PT
7913N	3.0	30	1	4	2	2	1	2	0	7	2	9	0	0	0	17 Kazzazi, Tony	PT
7914N	3.0	35	0	1	2	2	5	2	2	11	4	6	0	0	0	4 La-Plant, Sandra	PT
7916N	3.0	33	0	3	0	0	11	0	0	7	4	8	0	0	0	7 Minor, James	PT
7917N	3.0	18	1	1	0	0	1	2	0	3	4	4	0	2	0	8 Lieberknecht, Scott	PT
7918	3.0	29	0	6	0	2	4	0	1	4	2	10	0	0	0	7 Giles, Sharon	
7919	3.0	41	2	10	0	3	8	0	0	6	2	7	2	1	0	10 Giles, Sharon	
8901	3.0	33	1	6	0	0	8	0	2	2	4	9	0	1	0	10 Giles, Sharon	
Course Total		692	20	109	9	22	120	9	29	127	55	176	4	10	0	180	
MATH-110 Inter Alg for Math/Bus/Sci/Eng																	
7920	5.0	41	0	7	0	0	12	0	0	4	2	16	0	0	0	5 Hardiman, Richard	PT
7921	5.0	16	0	1	0	0	1	0	0	2	1	9	0	1	0	19 Homann, William	PT
7923	5.0	37	2	3	0	0	8	1	2	7	5	8	0	1	0	8 Capacia, Nemie	
7924	5.0	26	2	1	0	2	6	0	1	3	5	6	0	0	0	12 Working, Susan	XP
7925	5.0	39	2	4	0	2	11	0	0	7	4	9	0	0	0	2 Working, Susan	
7926	5.0	29	0	4	0	1	3	0	1	6	3	11	0	0	0	15 Working, Susan	

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7927		5.0	47	0	47	0	0	0	0	0	0	0	0	0	0	0	7	Tarvin, James	
7928		5.0	47	0	13	0	0	13	0	0	13	4	3	0	1	0	7	Larios, Oscar	PT
7929		5.0	24	0	0	0	0	3	0	0	11	4	4	1	1	0	16	Phillips, Virginia	PT
7930		5.0	29	0	3	0	0	4	0	0	7	2	13	0	0	0	11	Wilson, John	PT
7931		5.0	31	0	4	0	0	5	0	0	4	6	12	0	0	0	10	Orr, Michael	PT
7932		5.0	34	0	8	0	0	2	0	0	10	1	12	0	1	0	6	Holcombe, Coryna	PT
7934N		5.0	43	0	8	0	0	14	0	0	13	0	6	2	0	0	1	Emami, Mohammad	PT
7936N		5.0	23	0	4	1	0	4	0	1	4	3	5	0	1	0	12	Lieberknecht, Scott	PT
7937N		5.0	38	0	4	0	0	8	0	0	8	8	8	0	2	0	5	Safaee, Mehdi	PT
7938N		5.0	37	0	6	2	1	5	1	2	9	1	9	0	1	0	6	Minor, James	PT
8915		5.0	20	4	1	0	1	1	2	2	1	1	7	0	0	0	18	Palacios, Irene	
Course Total			561	10	118	3	7	100	4	9	109	50	138	3	9	0	160		
MATH-120 Math for General Education																			
0218		3.0	28	0	5	4	1	5	4	3	3	0	3	0	0	0	2	Waller, John	
7941		3.0	41	0	18	0	0	14	0	0	3	1	4	1	0	0	4	Willweber, Sara	PT
7944		3.0	42	0	5	0	0	5	0	0	14	11	7	0	0	0	2	Lee, Cary	
7945		3.0	24	0	24	0	0	0	0	0	0	0	0	0	0	0	11	Tarvin, James	
7947		3.0	26	0	4	3	1	3	1	2	3	1	7	1	0	0	3	Waller, John	
7948	8	3.0	40	0	19	0	0	14	0	0	6	0	1	0	0	0	0	Denney, Jennifer	PT
7949		3.0	32	0	4	0	0	8	0	0	6	4	10	0	0	0	7	Lee, Cary	
7950		3.0	28	0	2	0	0	6	0	0	9	5	6	0	0	0	12	Lee, Cary	
7951		3.0	26	0	26	0	0	0	0	0	0	0	0	0	0	0	7	Tarvin, James	
7952N		3.0	27	0	16	0	0	7	0	0	4	0	0	0	0	0	2	Willweber, Sara	PT
7954N		3.0	28	0	4	0	0	12	0	0	9	0	2	0	1	0	5	Emami, Mohammad	PT
Course Total			342	0	127	7	2	74	5	5	57	22	40	2	1	0	55		

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MATH-125 Structure/Concepts Elem Math I																		
7955		3.0	30	0	3	0	0	5	0	0	9	6	6	1	0	0	4 Lee, Cary	XP
7956N		3.0	28	0	4	4	2	3	5	1	3	4	2	0	0	0	0 Tamanaha-Justeson, Debora	PT
Course Total			58	0	7	4	2	8	5	1	12	10	8	1	0	0	4	
MATH-126 Structure/Concept Elem Math II																		
7957		3.0	20	0	3	0	0	6	0	0	8	2	1	0	0	0	3 Lee, Cary	
Course Total			20	0	3	0	0	6	0	0	8	2	1	0	0	0	3	
MATH-128 Children's Mathematic Thinking																		
7960	8	1.5	20	0	2	4	1	0	2	1	1	1	8	0	0	0	4 Tamanaha-Justeson, Debora	PT
7961N	8	1.5	18	0	9	2	1	1	2	2	0	0	1	0	0	0	2 Tamanaha-Justeson, Debora	PT
Course Total			38	0	11	6	2	1	4	3	1	1	9	0	0	0	6	
MATH-160 Elementary Statistics																		
7963		3.0	27	0	8	0	0	6	0	0	4	3	6	0	0	0	14 Orr, Michael	PT
7964		3.0	38	0	4	0	0	9	0	0	13	7	5	0	0	0	14 Safaee, Mehdi	PT
7965		3.0	39	0	9	0	0	8	0	0	12	3	7	0	0	0	9 Pilipets, Olga	PT
7966		3.0	31	0	4	0	0	3	0	0	13	3	7	1	0	0	22 Lines, Michael	
7968		3.0	31	0	11	0	0	4	0	0	13	0	3	0	0	0	6 Sadeghipour, Farid	PT
7969		3.0	65	0	14	0	0	24	0	0	19	3	5	0	0	0	1 Curran, Thomas	PT
7971		3.0	31	0	7	0	0	5	0	0	7	3	9	0	0	0	13 Homann, William	PT
7972		3.0	42	2	6	2	4	5	1	1	9	6	6	0	0	0	6 Vanden-Eynden, Jennifer	
7974		3.0	49	0	15	0	0	25	0	0	6	3	0	0	0	0	4 Lamb, Gary	PT
7975		3.0	60	6	13	0	1	13	0	4	13	6	4	0	0	0	3 Giles, Sharon	
7976		3.0	45	0	8	0	0	8	0	0	14	2	13	0	0	0	6 Pilipets, Olga	PT

7977		3.0	22	0	7	0	0	1	0	0	4	0	10	0	0	0	9 Manikandan, Gayathri	PT
7978		3.0	23	0	4	0	0	2	0	0	6	5	5	1	0	0	12 Sibbald, Eugene	PT
7980	8	3.0	42	0	5	0	0	12	0	0	16	5	4	0	0	0	7 Larios, Oscar	PT
7981		3.0	17	0	4	0	0	2	0	0	4	5	2	0	0	0	10 Sibbald, Eugene	PT
7982		3.0	28	0	2	0	0	7	0	0	11	4	4	0	0	0	13 Gordon, Lance	PT
7983N		3.0	46	0	30	0	0	8	0	0	6	1	1	0	0	0	6 Ward, Mary	PT
7984N		3.0	30	0	5	0	0	6	0	0	7	6	5	0	1	0	4 Johnson, Lee	PT
7985N		3.0	29	0	9	0	0	12	0	0	4	3	1	0	0	0	3 Schoonover, Melvin	PT
7986N		3.0	30	0	6	0	0	9	0	0	8	1	5	0	1	0	12 Holcombe, Coryna	PT
7987		3.0	25	3	0	2	0	2	0	1	5	4	8	0	0	0	19 Palacios, Irene	
7988		3.0	29	3	4	3	1	2	0	3	5	2	6	0	0	0	16 Palacios, Irene	
7989		3.0	27	4	1	0	1	4	0	2	4	4	6	1	0	0	10 Palacios, Irene	
Course Total			806	18	176	7	7	177	1	11	203	79	122	3	2	0	219	
MATH-170 Analytic Trigonometry																		
7991		3.0	37	0	12	0	0	6	0	0	7	5	7	0	0	0	10 Brown, Danielle	PT
7992N		3.0	24	0	2	0	2	6	0	0	10	2	2	0	0	0	4 Winn, Richard	PT
8916		3.0	20	0	3	0	0	7	0	0	6	4	0	0	0	0	6 Gordon, Lance	PT
Course Total			81	0	17	0	2	19	0	0	23	11	9	0	0	0	20	
MATH-175 College Algebra																		
7993		4.0	32	0	3	0	0	7	0	0	13	4	5	0	0	0	11 Curran, Thomas	PT
7994		4.0	33	0	33	0	0	0	0	0	0	0	0	0	0	0	6 Tarvin, James	
7995		4.0	33	0	6	0	0	4	0	0	14	4	5	0	0	0	8 Medin, Andrew	PT
7996		4.0	21	0	1	1	0	2	0	0	7	2	6	0	2	0	17 Hicks, Shawn	
7998		4.0	20	0	2	2	0	1	3	0	7	2	3	0	0	0	21 Lambe, Michael	PT
8000N		4.0	15	0	5	0	0	2	0	0	5	1	2	0	0	0	14 Wilson, John	PT
Course Total			154	0	50	3	0	16	3	0	46	13	21	0	2	0	77	

MATH-176 Precalculus: Functions/Graphs																		
8001	6.0	36	0	3	1	1	4	2	0	11	6	7	0	1	0	11	Hicks, Shawn	
8002	6.0	34	0	12	0	0	6	0	0	9	3	3	0	1	0	10	Millan, Arturo	
8003	6.0	32	0	2	0	0	7	0	0	8	5	6	0	3	0	18	Lines, Michael	XP
8004	6.0	33	4	8	0	4	4	0	1	6	1	0	4	1	0	13	Funk, Raymond	
Course Total		135	4	25	1	5	21	2	1	34	15	16	4	6	0	52		
MATH-177 Intro to Teach Secondary Math																		
9729	3.0	16	0	12	0	0	3	0	0	0	0	1	0	0	0	4	Davis, Stephen	
Course Total		16	0	12	0	0	3	0	0	0	0	1	0	0	0	4		
MATH-178 Calculus-Bus-Soc & Behav Sci																		
8005	4.0	27	0	8	0	0	6	0	0	6	0	7	0	0	0	8	Nadalet, Silvia	PT
8006	4.0	47	0	20	0	0	13	0	0	9	2	3	0	0	0	5	Millan, Arturo	
8007	4.0	33	1	3	4	0	4	2	3	7	3	6	0	0	0	6	Greenheck, Daniel	PT
8008	4.0	44	7	7	0	1	8	0	5	10	3	3	0	0	0	5	Giles, Sharon	
8010	4.0	23	0	10	0	0	7	0	0	4	0	1	0	0	0	15	Salehpoor, Zahra	PT
8011	4.0	33	0	18	0	0	10	0	0	2	0	3	0	0	0	12	Millan, Arturo	
8012N	4.0	25	0	13	0	0	5	0	0	6	1	0	0	0	0	6	Ridgway, Rob	PT
8013N	4.0	23	0	4	0	1	7	3	0	4	1	3	0	0	0	6	Burrus, Patrick	PT
Course Total		255	8	83	4	2	60	5	8	48	10	26	0	0	0	63		
MATH-180 Analytic Geometry & Calculus I																		
8014	5.0	28	0	9	0	0	7	0	0	6	3	3	0	0	0	11	Wilborn, Brenda	PT
8015	5.0	47	0	11	3	3	13	2	4	8	0	3	0	0	0	8	Manchester, Corey	
8016	5.0	32	0	5	0	0	9	0	0	7	3	8	0	0	0	9	Davis, Stephen	
8017	5.0	19	0	6	0	0	4	0	0	2	1	6	0	0	0	3	Davis, Stephen	
8018	5.0	34	1	3	0	3	14	0	4	4	0	5	0	0	0	8	Funk, Raymond	

8019N	5.0	39	0	7	5	1	7	3	2	9	1	3	0	1	0	16	Waller, John	
8020N	5.0	29	0	3	4	2	4	3	1	5	4	3	0	0	0	8	Lambe, Michael	PT
Course Total		228	1	44	12	9	58	8	11	41	12	31	0	1	0	63		
MATH-245 Discrete Math																		
8022	3.0	10	0	1	0	0	4	0	0	2	1	2	0	0	0	21	Lee, Cary	
Course Total		10	0	1	0	0	4	0	0	2	1	2	0	0	0	21		
MATH-280 Analytic Geometry/Calculus II																		
8023	4.0	29	0	3	1	1	10	0	3	6	4	0	1	0	0	10	La-Puma, Russell	PT
8024	4.0	43	0	20	0	0	13	0	0	4	3	3	0	0	0	7	Millan, Arturo	
8025	4.0	27	0	4	0	0	9	0	0	7	0	7	0	0	0	15	Lines, Michael	
8026	4.0	34	2	5	2	1	10	0	0	11	1	1	0	1	0	10	Funk, Raymond	
8027N	4.0	26	1	4	2	0	4	0	0	5	3	5	0	1	0	10	Burrus, Patrick	PT
Course Total		159	3	36	5	2	46	0	3	33	11	16	1	2	0	52		
MATH-281 Intermediate Calculus																		
8028	4.0	47	0	17	2	1	8	2	2	9	6	0	0	0	0	2	La-Puma, Russell	PT
8029N	4.0	28	2	3	1	1	3	2	0	1	8	5	2	0	0	15	Ponce, Monica	PT
Course Total		75	2	20	3	2	11	4	2	10	14	5	2	0	0	17		
MATH-284 Linear Algebra																		
8030N	3.0	45	6	12	7	2	3	3	6	4	0	2	0	0	0	3	Bennett, Caroline	PT
Course Total		45	6	12	7	2	3	3	6	4	0	2	0	0	0	3		
MATH-285 Differential Equations																		
8031	3.0	26	0	5	0	0	8	0	0	7	0	6	0	0	0	14	Lines, Michael	
Course Total		26	0	5	0	0	8	0	0	7	0	6	0	0	0	14		
MATH-299B Adv Problem Solving Seminar																		
9979	2.0	19	0	0	0	0	0	0	0	0	0	0	17	2	0	0	Funk, Raymond	
Course Total		19	0	0	0	0	0	0	0	0	0	0	17	2	0	0		

Subject Total	4714	72	856	71	66	735	53	89	765	306	629	659	407	0	1236
Division Total	4714	72	856	71	66	735	53	89	765	306	629	659	407	0	1236

** = Not Valid for ADA -- Not included in totals

Grade Distribution by Division

School: Grossmont College -- Term: 2010FA -- Division: G06 -- Subject: MATH -- Course: All Courses

Section N = Night ** = Not Valid for ADA	S.T. Wks	Hrs	Enrollment	A+	A	A-	B+	B	B-	C+	C	D	F	Pass	NoPass	Inc	W	Instructor	
G06 -- Mathematics Natural Sciences Ex Sci																			
MATH-080 Basic Mathematics																			
3351	8	2.0	33	0	0	0	0	0	0	0	0	0	0	14	19	0	12	Flowers, Steven	PT
3352	8	2.0	31	0	0	0	0	0	0	0	0	0	0	18	13	0	12	Smith, Elizabeth	
Course Total			64	0	0	0	0	0	0	0	0	0	0	32	32	0	24		
MATH-088 Pre-Algebra																			
3353		4.0	44	0	0	0	0	0	0	0	0	0	0	43	1	0	0	Lamb, Gary	PT
3354	10	4.0	37	0	0	0	0	0	0	0	0	0	0	35	2	0	12	Reynolds, Briana	PT
3356	6	4.0	42	0	0	0	0	0	0	0	0	0	0	32	10	0	0	Pereira, Shirley	
3358N		4.0	47	0	0	0	0	0	0	0	0	0	0	38	9	0	5	Ward, Mary	PT
3359N		4.0	46	0	0	0	0	0	0	0	0	0	0	37	9	0	3	Kazzazi, Tony	PT
6875	8	4.0	17	0	0	0	0	0	0	0	0	0	0	12	5	0	2	Vallejo, Cheryl	PT
9447	6	4.0	31	0	0	0	0	0	0	0	0	0	0	26	5	0	9	Denney, Jennifer	PT
Course Total			264	0	0	0	0	0	0	0	0	0	0	223	41	0	31		
MATH-088L Comp Tutor Review/Prealgebra																			
3360	14	1.0	8	0	0	0	0	0	0	0	0	0	0	8	0	0	3	Pereira, Shirley	
Course Total			8	0	0	0	0	0	0	0	0	0	0	8	0	0	3		
MATH-090 Elementary Algebra																			
3362		5.0	29	0	0	0	0	0	0	0	0	0	0	20	9	0	16	Salehpoor, Zahra	PT
3363		5.0	37	0	0	0	0	0	0	0	0	0	0	19	18	0	13	Hicks, Shawn	
3364		5.0	23	0	0	0	0	0	0	0	0	0	0	18	5	0	6	Manchester, Corey	
3365		5.0	33	0	0	0	0	0	0	0	0	0	0	22	11	0	5	Capacia, Nemie	
3366		5.0	32	0	0	0	0	0	0	0	0	0	0	23	9	0	7	Capacia, Nemie	

Printed on: 9/21/2012 ** = Not Valid for ADA -- Not included in totals Page: 1

3367		5.0	39	0	0	0	0	0	0	0	0	0	0	24	15	0	4 Capacia, Nemie	
3368		5.0	36	0	0	0	0	0	0	0	0	0	0	25	11	0	11 Lines, Michael	
3369		5.0	23	0	0	0	0	0	0	0	0	0	0	15	8	0	3 Capacia, Nemie	
3370	10	5.0	31	0	0	0	0	0	0	0	0	0	0	24	7	0	1 Pereira, Shirley	
3371		5.0	43	0	0	0	0	0	0	0	0	0	0	35	8	0	9 Lines, Michael	
3372		5.0	34	0	0	0	0	0	0	0	0	0	0	20	14	0	15 Smith, Elizabeth	
3374		5.0	28	0	0	0	0	0	0	0	0	0	0	13	15	0	18 Barry, Alexis	PT
3375		5.0	32	0	0	0	0	0	0	0	0	0	0	18	14	0	11 Millan, Arturo	
3376		5.0	29	0	0	0	0	0	0	0	0	0	0	15	14	0	11 Brown, Danielle	PT
3377		5.0	36	0	0	0	0	0	0	0	0	0	0	29	7	0	8 Funk, Raymond	
3378		5.0	28	0	0	0	0	0	0	0	0	0	0	17	11	0	18 Hilton, Christina	PT
3379N		5.0	27	0	0	0	0	0	0	0	0	0	0	19	8	0	12 Williams, Theodore	PT
3380N		5.0	32	0	0	0	0	0	0	0	0	0	0	26	6	0	7 Winn, Richard	PT
3381N		5.0	36	0	0	0	0	0	0	0	0	0	0	30	6	0	8 Speckmann, William	PT
3382N		5.0	23	0	0	0	0	0	0	0	0	0	0	10	13	0	16 Flowers, Steven	PT
3383N		5.0	45	0	0	0	0	0	0	0	0	0	0	28	17	0	6 Willweber, Sara	PT
9501	10	5.0	28	0	0	0	0	0	0	0	0	0	0	18	10	0	1 Denney, Jennifer	PT
Course Total			704	0	0	0	0	0	0	0	0	0	0	468	236	0	206	
MATH-090L Comp Tutor Review/Elem Algebra																		
3384	14	1.0	4	0	0	0	0	0	0	0	0	0	0	2	2	0	6 Palacios, Irene	
Course Total			4	0	0	0	0	0	0	0	0	0	0	2	2	0	6	
MATH-097 Plane Geometry																		
3385		3.0	38	0	0	0	0	0	0	0	0	0	0	25	13	0	6 Reynolds, Briana	PT
Course Total			38	0	0	0	0	0	0	0	0	0	0	25	13	0	6	
MATH-103 Intermediate Algebra																		
3387		3.0	39	2	8	0	4	9	0	2	5	3	6	0	0	0	10 Kmet, Ann	XP

3388		3.0	37	0	3	0	0	17	0	0	11	1	5	0	0	0	8	Lamb, Gary	PT
3389		3.0	62	2	7	0	2	14	0	4	10	8	15	0	0	0	16	Kmet, Ann	XP
3390		3.0	52	1	4	1	3	8	8	0	10	7	10	0	0	0	4	Waller, John	
3392		3.0	46	5	12	0	2	10	0	2	7	3	3	1	1	0	13	Kmet, Ann	
3393		3.0	46	2	14	0	1	6	0	5	13	1	4	0	0	0	11	Kmet, Ann	
3394		3.0	45	1	10	0	4	11	0	4	6	2	6	1	0	0	12	Kmet, Ann	
3395		3.0	42	1	9	0	1	8	0	1	10	6	6	0	0	0	11	Kmet, Ann	
3397		3.0	43	0	1	0	0	6	0	0	12	7	16	1	0	0	11	Phillips, Virginia	PT
3398		3.0	49	2	6	0	4	10	0	4	13	2	8	0	0	0	14	Kmet, Ann	
3399		3.0	40	0	4	0	0	17	0	0	8	8	3	0	0	0	6	Larios, Oscar	PT
3400		3.0	37	2	3	0	1	2	1	2	10	10	5	1	0	0	13	Greenheck, Daniel	PT
3402		3.0	41	1	6	0	3	8	1	2	5	1	14	0	0	0	9	Minor, James	PT
3403		3.0	37	0	3	0	0	9	0	0	10	5	9	1	0	0	8	Wilson, John	PT
3405N		3.0	41	0	6	0	0	3	3	0	5	4	20	0	0	0	9	Ridgway, Rob	PT
3408N		3.0	36	0	4	2	3	5	8	1	4	4	4	1	0	0	10	Winn, Richard	PT
3409		3.0	34	3	9	0	0	11	0	0	6	1	3	1	0	0	9	Giles, Sharon	
3410		3.0	32	2	5	0	1	8	0	2	4	3	5	2	0	0	8	Giles, Sharon	
9935	8	3.0	40	0	5	2	0	15	0	2	4	12	0	0	0	0	7	La-Puma, Russell	PT
Course Total			799	24	119	5	29	177	21	31	153	88	142	9	1	0	189		
MATH-110 Inter Alg for Math/Bus/Sci/Eng																			
3411		5.0	42	0	7	0	0	8	0	0	8	11	8	0	0	0	10	Safaee, Mehdi	PT
3412		5.0	42	0	6	0	0	9	0	0	12	5	10	0	0	0	6	Hardiman, Richard	PT
3413		5.0	24	0	4	0	0	3	0	0	6	4	7	0	0	0	16	Homann, William	PT
3414		5.0	39	1	6	3	2	6	2	3	6	4	6	0	0	0	11	Spoon, Kelly	PT
3415		5.0	37	0	4	0	2	6	0	3	10	6	6	0	0	0	6	Working, Susan	XP

3416		5.0	42	4	3	0	2	7	0	3	9	9	5	0	0	0	1 Working, Susan	
3417		5.0	32	1	7	0	0	5	0	1	7	6	5	0	0	0	9 Working, Susan	
3419		5.0	28	4	3	0	1	4	2	1	7	3	3	0	0	0	17 Palacios, Irene	
3420		5.0	50	0	9	2	4	7	2	1	7	11	7	0	0	0	3 Manchester, Corey	
3421		5.0	34	0	1	0	0	3	1	2	3	8	16	0	0	0	12 Hicks, Shawn	
3422		5.0	32	3	2	0	1	5	0	1	9	3	8	0	0	0	13 Palacios, Irene	
3423		5.0	41	0	2	0	0	10	0	0	13	1	14	0	0	0	10 Pilipets, Olga	PT
3424		5.0	43	0	3	4	2	8	2	1	10	9	4	0	0	0	8 Manchester, Corey	
3425		5.0	32	1	1	2	1	2	2	2	0	8	13	0	0	0	17 Wheelock, Rebecca	PT
3427N		5.0	37	0	6	2	4	1	7	3	5	3	6	0	0	0	8 La-Plant, Sandra	PT
3428N		5.0	30	3	6	0	2	5	1	0	2	1	9	1	0	0	9 Lieberknecht, Scott	PT
3429N		5.0	39	2	1	0	0	6	0	0	7	8	15	0	0	0	7 Ridgway, Rob	PT
3430N		5.0	41	0	12	0	0	6	0	0	8	1	13	1	0	0	7 Maloney, James	PT
3431N		5.0	40	1	5	1	0	4	1	1	11	4	12	0	0	0	5 Minor, James	PT
Course Total			705	20	88	14	21	105	20	22	140	105	167	2	0	0	175	
MATH-110L Comp Tutor Review/Intm Algebra																		
3432	14	1.0	6	0	0	0	0	0	0	0	0	0	0	2	4	0	2 Pereira, Shirley	XP
Course Total			6	0	0	0	0	0	0	0	0	0	0	2	4	0	2	
MATH-120 Math for General Education																		
3433		3.0	47	0	21	0	3	16	0	0	7	0	0	0	0	0	2 Willweber, Sara	PT
3434		3.0	41	0	11	0	0	15	0	0	13	1	1	0	0	0	4 Hardiman, Richard	PT
3435		3.0	44	0	8	0	0	13	0	0	11	4	6	2	0	0	2 Davis, Stephen	
3437		3.0	37	0	1	0	0	4	0	0	18	3	11	0	0	0	11 Lee, Cary	
3438	8	3.0	42	0	6	6	8	17	3	1	0	0	1	0	0	0	2 Vallejo, Cheryl	PT
3439		3.0	37	0	3	0	0	8	0	0	18	2	6	0	0	0	8 Lee, Cary	

3441		3.0	37	0	1	0	0	12	0	0	10	7	7	0	0	0	3	Lee, Cary	
3442		3.0	40	0	9	3	3	10	2	3	7	1	2	0	0	0	9	Aguilar, Karen	PT
3443N		3.0	48	0	8	0	0	13	0	0	22	0	5	0	0	0	2	Emami, Mohammad	PT
Course Total			373	0	68	9	14	108	5	4	106	18	39	2	0	0	43		
MATH-125 Structure/Concepts Elem Math I																			
3446		3.0	19	0	1	0	0	3	0	0	7	4	4	0	0	0	9	Lee, Cary	XP
3448N		3.0	16	0	4	4	2	0	1	1	1	0	3	0	0	0	2	Tamanaha-Justeson, Debora	PT
Course Total			35	0	5	4	2	3	1	1	8	4	7	0	0	0	11		
MATH-126 Structure/Concept Elem Math II																			
3449		3.0	20	0	3	0	0	1	0	0	10	5	1	0	0	0	1	Lee, Cary	
Course Total			20	0	3	0	0	1	0	0	10	5	1	0	0	0	1		
MATH-128 Children's Mathematic Thinking																			
3452N	8	1.5	19	0	4	8	2	1	0	1	2	0	1	0	0	0	1	Tamanaha-Justeson, Debora	PT
Course Total			19	0	4	8	2	1	0	1	2	0	1	0	0	0	1		
MATH-160 Elementary Statistics																			
3440		3.0	34	0	3	0	0	7	0	0	12	2	10	0	0	0	16	Sadeghipour, Farid	PT
3454		3.0	38	4	6	3	0	8	0	2	8	2	5	0	0	0	10	Hernandez, Mayra	PT
3455		3.0	43	0	14	0	0	7	0	0	11	6	5	0	0	0	8	Safaee, Mehdi	PT
3456		3.0	33	0	3	0	0	10	0	0	6	4	10	0	0	0	19	Lines, Michael	XP
3458		3.0	50	1	16	0	2	11	0	4	6	4	5	1	0	0	2	Giles, Sharon	
3460		3.0	39	2	4	3	1	7	3	3	6	4	6	0	0	0	9	Vanden-Eynden, Jennifer	
3461		3.0	41	0	7	0	0	13	0	0	12	5	4	0	0	0	8	Larios, Oscar	PT
3462		3.0	50	3	19	0	2	14	0	1	9	0	2	0	0	0	3	Giles, Sharon	
3463		3.0	47	0	15	0	0	12	0	0	9	4	6	1	0	0	6	Curran, Thomas	PT

3465		3.0	46	0	4	2	5	3	5	4	7	3	11	0	1	0	11	Waller, John	
3467	8	3.0	33	0	3	0	0	4	0	0	15	5	6	0	0	0	17	Sibbald, Eugene	PT
3468		3.0	31	0	4	0	0	6	0	0	14	3	4	0	0	0	14	Gordon, Lance	PT
3469		3.0	44	1	6	3	5	8	3	5	7	4	1	1	0	0	6	Waller, John	
3470N		3.0	27	0	2	0	0	6	0	0	8	2	8	1	0	0	16	Sibbald, Eugene	PT
3471N		3.0	30	0	5	0	0	6	0	0	14	2	3	0	0	0	9	Gordon, Lance	PT
3473N		3.0	44	0	26	0	0	10	0	0	3	0	4	1	0	0	4	Ward, Mary	PT
3474		3.0	19	0	2	0	3	4	0	0	2	3	5	0	0	0	16	Palacios, Irene	
3475		3.0	27	3	2	1	0	4	0	0	8	2	7	0	0	0	13	Palacios, Irene	
Course Total			676	14	141	12	18	140	11	19	157	55	102	5	1	0	187		
MATH-170 Analytic Trigonometry																			
3477		3.0	24	0	3	0	0	1	0	0	4	5	11	0	0	0	19	Homann, William	PT
3478		3.0	41	1	6	0	2	8	0	4	6	2	12	0	0	0	9	Working, Susan	
3479N		3.0	30	0	2	1	1	4	1	3	5	5	8	0	0	0	10	Lieberknecht, Scott	PT
Course Total			95	1	11	1	3	13	1	7	15	12	31	0	0	0	38		
MATH-175 College Algebra																			
3480		4.0	43	0	5	0	0	10	0	0	15	3	10	0	0	0	12	Curran, Thomas	PT
3481		4.0	34	0	9	0	0	4	0	0	9	2	10	0	0	0	16	Davis, Stephen	
3482		4.0	35	3	1	1	1	1	1	2	11	6	6	1	0	0	7	Greenheck, Daniel	PT
3484		4.0	29	0	0	2	0	2	4	0	7	7	5	1	1	0	16	Lambe, Michael	PT
3486		4.0	30	0	5	0	0	3	0	0	10	5	7	0	0	0	19	Lines, Michael	
3487N		4.0	46	0	14	0	0	24	0	0	7	0	1	0	0	0	3	Emami, Mohammad	PT
Course Total			217	3	34	3	1	44	5	2	59	23	39	2	1	0	73		
MATH-176 Precalculus: Functions/Graphs																			
3488		6.0	42	0	6	0	1	5	0	0	7	9	12	0	2	0	8	Hicks, Shawn	

3489	6.0	51	0	51	0	0	0	0	0	0	0	0	0	0	0	6 Tarvin, James	
3490	6.0	39	0	7	0	0	8	0	0	10	2	11	1	0	0	9 Davis, Stephen	
3491	6.0	34	0	9	0	0	10	0	0	9	1	4	1	0	0	9 Orr, Michael	PT
Course Total		166	0	73	0	1	23	0	0	26	12	27	2	2	0	32	
MATH-177 Intro to Teach Secondary Math																	
9607	3.0	9	0	6	0	0	0	0	0	1	0	2	0	0	0	0 Davis, Stephen	
Course Total		9	0	6	0	0	0	0	0	1	0	2	0	0	0	0	
MATH-178 Calculus:Bus-Soc & Behav Sci																	
3493	4.0	34	6	12	0	3	5	0	1	4	2	1	0	0	0	6 Maxham, Patricia	PT
3494	4.0	37	0	5	0	1	10	4	1	4	5	7	0	0	0	9 Pereira, Shirley	
3495	4.0	41	1	14	0	4	8	0	0	12	0	2	0	0	0	4 Giles, Sharon	
3496	4.0	39	0	20	0	0	9	0	0	4	1	5	0	0	0	11 Millan, Arturo	
3497	4.0	35	0	21	0	0	5	0	0	5	3	1	0	0	0	13 Millan, Arturo	
3498N	4.0	16	0	4	0	0	4	0	0	6	1	1	0	0	0	16 Wilson, John	PT
Course Total		202	7	76	0	8	41	4	2	35	12	17	0	0	0	59	
MATH-180 Analytic Geometry & Calculus I																	
3500	5.0	40	0	16	0	0	8	0	0	9	3	3	0	1	0	8 Wilborn, Brenda	PT
3501	5.0	45	0	45	0	0	0	0	0	0	0	0	0	0	0	3 Tarvin, James	
3502	5.0	46	0	14	0	0	14	0	0	9	2	7	0	0	0	7 Millan, Arturo	
3503	5.0	38	1	4	5	0	4	4	5	9	3	3	0	0	0	12 Vanden-Eynden, Jennifer	
3504	5.0	31	4	2	4	2	7	7	0	3	0	2	0	0	0	16 Funk, Raymond	
3505N	5.0	43	0	43	0	0	0	0	0	0	0	0	0	0	0	5 Tarvin, James	
3506N	5.0	33	1	1	4	0	1	5	0	13	3	5	0	0	0	8 Lambe, Michael	PT
Course Total		276	6	125	13	2	34	16	5	43	11	20	0	1	0	59	

MATH-245 Discrete Mathematics																		
5244N	3.0	33	1	3	3	0	2	3	1	17	1	2	0	0	0	2	Burrus, Patrick	PT
Course Total		33	1	3	3	0	2	3	1	17	1	2	0	0	0	2		
MATH-280 Analytic Geometry/Calculus II																		
3509	4.0	16	0	3	0	0	3	1	1	7	0	0	1	0	0	4	La-Puma, Russell	PT
3510	4.0	47	2	15	3	3	13	0	2	4	2	3	0	0	0	9	Manchester, Corey	
3511	4.0	42	0	4	0	0	5	4	3	13	5	8	0	0	0	5	Waller, John	
3512	4.0	38	2	1	4	1	7	7	1	9	1	5	0	0	0	8	Funk, Raymond	
3513N	4.0	19	0	3	0	0	2	1	0	9	1	3	0	0	0	4	Burrus, Patrick	PT
Course Total		162	4	26	7	4	30	13	7	42	9	19	1	0	0	30		
MATH-281 Intermediate Calculus																		
3514	4.0	44	0	8	0	0	15	0	0	15	0	6	0	0	0	10	Lines, Michael	
3515N	4.0	31	2	5	4	0	9	3	1	5	2	0	0	0	0	12	Sundblad, Kristina	PT
Course Total		75	2	13	4	0	24	3	1	20	2	6	0	0	0	22		
MATH-284 Linear Algebra																		
3516	3.0	24	0	3	0	0	3	0	0	6	6	6	0	0	0	8	Lee, Cary	
Course Total		24	0	3	0	0	3	0	0	6	6	6	0	0	0	8		
MATH-285 Differential Equations																		
3517N	3.0	35	3	5	5	0	8	1	1	8	0	4	0	0	0	15	Funk, Raymond	
Course Total		35	3	5	5	0	8	1	1	8	0	4	0	0	0	15		
Subject Total		5009	85	803	88	105	757	104	104	848	363	632	783	334	0	1223		
Division Total		5009	85	803	88	105	757	104	104	848	363	632	783	334	0	1223		

Grade Distribution by Division
School: Grossmont College -- Term: 2011SP -- Division: G06 -- Subject: MATH -- Course: All Courses

Section N = Night ** = Not Valid for ADA	S.T. Wks	Hrs	Enrollment	A+	A	A-	B+	B	B-	C+	C	D	F	Pass	NoPass	Inc	W	Instructor	
G06 -- Mathematics Natural Sciences Ex Sci																			
MATH-080 Basic Mathematics																			
7855	8	2.0	37	0	0	0	0	0	0	0	0	0	0	31	6	0	13	Reynolds, Briana	PT
7856	8	2.0	29	0	0	0	0	0	0	0	0	0	0	22	7	0	13	Reynolds, Briana	PT
Course Total			66	0	0	0	0	0	0	0	0	0	0	53	13	0	26		
MATH-088 Pre-Algebra																			
7859		4.0	44	0	0	0	0	0	0	0	0	0	0	38	6	0	5	Willweber, Sara	PT
7860	6	4.0	39	0	0	0	0	0	0	0	0	0	0	35	4	0	2	Denney, Jennifer	PT
7861	6	4.0	34	0	0	0	0	0	0	0	0	0	0	23	11	0	5	Pereira, Shirley	
7862		4.0	40	0	0	0	0	0	0	0	0	0	0	30	10	0	8	Brown, Danielle	PT
7864N		4.0	41	0	0	0	0	0	0	0	0	0	0	36	5	0	4	Safaee, Mehdi	PT
9992	10	4.0	20	0	0	0	0	0	0	0	0	0	0	12	8	0	12	Greenheck, Daniel	PT
Course Total			218	0	0	0	0	0	0	0	0	0	0	174	44	0	36		
MATH-088L Comp Tutor Review/Prealgebra																			
7866 **	14	1.0	10	0	0	0	0	0	0	0	0	0	0	9	1	0	3	Daud, Solomon	PT
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-090 Elementary Algebra																			
7869		5.0	43	0	0	0	0	0	0	0	0	0	0	16	27	0	7	Hicks, Shawn	
7870		5.0	19	0	0	0	0	0	0	0	0	0	0	13	6	0	6	Manchester, Corey	
7871		5.0	29	0	0	0	0	0	0	0	0	0	0	25	4	0	11	Capacia, Nemie	
7872		5.0	33	0	0	0	0	0	0	0	0	0	0	25	8	0	5	Capacia, Nemie	
7873		5.0	27	0	0	0	0	0	0	0	0	0	0	14	13	0	8	Capacia, Nemie	
7874		5.0	41	0	0	0	0	0	0	0	0	0	0	27	14	0	12	Lines, Michael	

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7875	10	5.0	21	0	0	0	0	0	0	0	0	0	0	15	6	0	0	Vargo, Shayne	PT
7876		5.0	22	0	0	0	0	0	0	0	0	0	0	9	13	0	1	Capacia, Nemie	
7877		5.0	32	0	0	0	0	0	0	0	0	0	0	26	6	0	10	Lines, Michael	XP
7878		5.0	30	0	0	0	0	0	0	0	0	0	0	23	7	0	18	Smith, Elizabeth	
7879		5.0	25	0	0	0	0	0	0	0	0	0	0	13	12	0	22	Millan, Arturo	
7880		5.0	50	0	0	0	0	0	0	0	0	0	0	48	2	0	0	Lamb, Gary	PT
7881		5.0	30	0	0	0	0	0	0	0	0	0	0	20	10	0	18	Larios, Oscar	PT
7882		5.0	31	0	0	0	0	0	0	0	0	0	0	20	11	0	11	Hilton, Christina	PT
7883		5.0	35	0	0	0	0	0	0	0	0	0	0	26	8	0	8	Funk, Raymond	
7884N		5.0	36	0	0	0	0	0	0	0	0	0	0	31	5	0	9	Ward, Mary	PT
7885N		5.0	26	0	0	0	0	0	0	0	0	0	0	20	6	0	5	Winn, Richard	PT
7886N		5.0	40	0	0	0	0	0	0	0	0	0	0	19	21	0	9	Reynolds, Briana	PT
7887N		5.0	41	0	0	0	0	0	0	0	0	0	0	26	15	0	8	Speckmann, William	PT
7888N		5.0	42	0	0	0	0	0	0	0	0	0	0	42	0	0	8	Emami, Mohammad	PT
9715	10	5.0	36	0	0	0	0	0	0	0	0	0	0	31	5	0	0	Denney, Jennifer	PT
Course Total			689	0	0	0	0	0	0	0	0	0	0	489	199	0	176		
MATH-090L Comp Tutor Review/Elem Algebra																			
7890 **	14	1.0	6	0	0	0	0	0	0	0	0	0	0	4	2	0	15	Palacios, Irene	
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-097 Plane Geometry																			
7891		3.0	32	0	0	0	0	0	0	0	0	0	0	21	11	0	7	Davis, Stephen	
Course Total			32	0	0	0	0	0	0	0	0	0	0	21	11	0	7		
MATH-103 Intermediate Algebra																			
6083	8	3.0	33	0	1	0	3	3	0	3	4	5	14	0	0	0	10	Sibbald, Eugene	PT
7894		3.0	29	0	6	0	3	4	0	3	4	4	5	0	0	0	6	Willweber, Sara	PT

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7896	3.0	38	1	5	0	1	10	0	1	8	2	8	1	1	0	12 Kmet, Ann	XP
7897	3.0	41	1	4	0	6	6	0	4	6	9	5	0	0	0	10 Kmet, Ann	XP
7898	3.0	39	4	4	1	3	4	1	3	8	3	8	0	0	0	8 Waller, John	
7900	3.0	45	2	9	0	1	7	0	2	9	6	8	1	0	0	6 Kmet, Ann	
7901	3.0	46	1	10	0	2	13	0	1	6	5	7	1	0	0	8 Kmet, Ann	
7902	3.0	39	3	4	0	2	9	0	3	8	2	6	0	2	0	11 Kmet, Ann	
7905	3.0	40	0	7	0	0	8	0	0	8	5	12	0	0	0	10 Brown, Danielle	PT
7906	3.0	39	1	10	0	2	9	0	0	3	5	9	0	0	0	10 Kmet, Ann	
7908	3.0	39	2	12	0	4	8	0	1	4	0	8	0	0	0	8 Kmet, Ann	
7909	3.0	30	0	7	0	0	5	0	0	6	1	11	0	0	0	14 Pilipets, Olga	PT
7911	3.0	35	0	1	1	3	3	3	2	8	9	5	0	0	0	11 La-Plant, Sandra	PT
7913N	3.0	23	1	0	1	1	1	1	1	5	2	10	0	0	0	17 Gloria, Rachel	PT
7914N	3.0	34	0	2	0	1	4	3	2	14	3	4	1	0	0	11 La-Plant, Sandra	PT
7917N	3.0	40	6	6	2	1	4	2	0	12	1	6	0	0	0	8 Winn, Richard	PT
7918	3.0	34	0	8	0	1	6	0	0	7	2	7	2	1	0	8 Giles, Sharon	
7919	3.0	27	0	8	0	1	6	0	0	5	2	5	0	0	0	7 Giles, Sharon	
Course Total		651	22	104	5	35	110	10	26	125	66	138	6	4	0	175	
MATH-110 Inter Alg for Math/Bus/Sci/Eng																	
7920	5.0	44	0	3	0	0	17	0	0	12	2	9	0	1	0	8 Hardiman, Richard	PT
7921	5.0	22	0	0	0	0	2	0	0	2	3	14	0	1	0	16 Homann, William	PT
7923	5.0	27	0	1	0	0	10	0	0	8	3	4	1	0	0	21 Orr, Michael	PT
7924	5.0	38	0	5	0	2	7	1	2	7	3	11	0	0	0	2 Working, Susan	XP
7925	5.0	36	0	4	0	0	11	0	0	6	4	11	0	0	0	4 Working, Susan	
7926	5.0	34	0	5	0	0	4	1	0	8	5	11	0	0	0	5 Working, Susan	
7927	5.0	49	0	8	0	4	7	3	3	10	3	10	0	1	0	5 Manchester, Corey	

7928		5.0	41	0	6	0	0	7	0	0	8	8	11	1	0	0	11	Hicks, Shawn	
7929		5.0	28	3	1	0	1	4	3	2	5	3	6	0	0	0	13	Palacios, Irene	
7930		5.0	43	3	12	0	2	8	0	2	13	1	2	0	0	0	7	Maxham, Patricia	PT
7931		5.0	39	0	11	0	3	7	0	0	10	2	4	1	1	0	13	Manchester, Corey	
7932		5.0	26	0	1	0	0	11	0	0	4	5	4	1	0	0	19	Barry, Alexis	PT
7934N		5.0	41	0	5	0	0	10	0	0	8	5	13	0	0	0	4	Minor, James	PT
7936N		5.0	38	0	10	0	0	8	0	0	7	7	6	0	0	0	8	Williams, Theodore	PT
7937N		5.0	18	3	1	0	1	1	0	0	5	5	2	0	0	0	11	Sundblad, Kristina	PT
7938N		5.0	18	0	3	0	0	1	1	0	4	2	7	0	0	0	12	Lieberknecht, Scott	PT
8915		5.0	22	0	1	2	1	4	1	0	3	3	6	0	1	0	18	Palacios, Irene	
Course Total			564	9	77	2	14	119	10	9	120	64	131	4	5	0	177		
MATH-110L Comp Tutor Review/Int Algebra																			
6080 **	14	1.0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	4	Daud, Solomon	PT
Course Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
MATH-120 Math for General Education																			
0218		3.0	21	0	2	3	1	6	4	2	1	1	0	1	0	0	4	Waller, John	
7941		3.0	37	2	11	0	2	12	0	1	8	1	0	0	0	0	6	Maxham, Patricia	PT
7944		3.0	33	0	5	0	0	7	0	0	9	4	8	0	0	0	7	Lee, Cary	
7945		3.0	39	0	7	0	0	16	0	0	9	2	5	0	0	0	5	Hardiman, Richard	PT
7947		3.0	22	2	3	5	1	0	4	1	1	2	2	0	1	0	3	Waller, John	
7948	8	3.0	22	0	2	0	0	5	0	0	4	3	8	0	0	0	17	Sibbald, Eugene	PT
7949		3.0	39	0	4	0	0	12	0	0	13	4	5	0	0	0	7	Lee, Cary	
7950		3.0	33	0	2	0	0	10	0	0	10	6	5	0	0	0	5	Lee, Cary	
7951		3.0	37	0	12	0	0	14	0	0	8	0	3	0	0	0	3	Ward, Mary	PT
7952N		3.0	35	0	13	0	0	8	0	0	7	3	3	1	0	0	5	Larios, Oscar	PT

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7954N		3.0	33	0	4	0	0	18	0	0	9	0	2	0	0	0	5	Emami, Mohammad	PT
Course Total			351	4	65	8	4	108	8	4	79	26	41	2	1	0	67		
MATH-125 Structure/Concepts Elem Math I																			
7955		3.0	36	0	3	0	0	10	0	0	14	1	8	0	0	0	4	Lee, Cary	XP
Course Total			36	0	3	0	0	10	0	0	14	1	8	0	0	0	4		
MATH-126 Structure/Concept Elem Math II																			
7957		3.0	14	0	0	0	0	4	0	0	3	5	2	0	0	0	4	Lee, Cary	
Course Total			14	0	0	0	0	4	0	0	3	5	2	0	0	0	4		
MATH-160 Elementary Statistics																			
6932		3.0	31	0	5	0	0	9	0	0	12	3	2	0	0	0	8	Safaee, Mehdi	PT
7963		3.0	45	0	7	0	0	12	0	0	17	1	8	0	0	0	9	Curran, Thomas	PT
7964		3.0	36	6	3	1	2	1	2	2	10	5	4	0	0	0	12	Spoon, Kelly	PT
7965		3.0	36	0	7	0	0	8	0	0	4	6	10	0	0	0	7	Sadeghipour, Farid	PT
7966		3.0	27	0	3	0	0	7	0	0	7	1	9	0	0	0	26	Lines, Michael	
7969		3.0	51	0	17	0	1	12	0	3	9	3	6	0	0	0	3	Giles, Sharon	
7971		3.0	36	0	4	0	0	7	0	0	10	11	4	0	0	0	12	Orr, Michael	PT
7972		3.0	36	1	6	2	1	6	0	3	8	4	5	0	0	0	16	Vanden-Eynden, Jennifer	
7974		3.0	46	0	12	0	0	23	0	0	10	1	0	0	0	0	3	Lamb, Gary	PT
7975		3.0	50	0	17	1	1	11	0	4	6	7	3	0	0	0	4	Giles, Sharon	
7976		3.0	33	0	3	4	0	8	0	2	8	5	3	0	0	0	9	Burrus, Patrick	PT
7978		3.0	50	1	6	1	4	7	6	1	12	5	7	0	0	0	6	Waller, John	
7980	8	3.0	29	0	2	0	0	2	0	0	9	2	14	0	0	0	11	Sibbald, Eugene	PT
7981		3.0	38	0	14	0	0	7	0	0	10	2	5	0	0	0	9	Pilipets, Olga	PT
7982		3.0	27	0	3	0	0	7	0	0	5	5	6	1	0	0	13	Gordon, Lance	PT
7983N		3.0	40	1	3	9	4	5	2	1	9	3	3	0	0	0	1	Vallejo, Cheryl	PT

7984N	3.0	31	0	3	0	0	8	0	0	11	8	1	0	0	0	15 Gordon, Lance	PT
7985N	3.0	34	1	10	1	0	8	0	0	10	1	3	0	0	0	9 Minor, James	PT
7986N	3.0	29	0	7	0	0	6	0	0	11	3	2	0	0	0	11 Safaee, Mehdi	PT
7987	3.0	32	2	5	2	4	2	1	0	4	3	9	0	0	0	13 Palacios, Irene	
7988	3.0	21	4	4	0	0	2	0	1	0	2	8	0	0	0	10 Palacios, Irene	
Course Total		758	16	141	21	17	158	11	17	182	81	112	1	0	0	207	
MATH-170 Analytic Trigonometry																	
7991	3.0	40	0	3	0	0	10	0	0	12	8	7	0	0	0	7 Davis, Stephen	
7992N	3.0	22	0	3	0	0	6	0	0	7	3	3	0	0	0	16 Wilson, John	PT
8916	3.0	43	1	15	0	2	6	0	3	4	7	4	0	1	0	9 Working, Susan	
Course Total		105	1	21	0	2	22	0	3	23	18	14	0	1	0	32	
MATH-175 College Algebra																	
7993	4.0	32	2	4	1	3	6	4	1	5	5	1	0	0	0	14 Spoon, Kelly	PT
7994	4.0	19	0	2	0	0	2	0	0	3	3	9	0	0	0	14 Homann, William	PT
7995	4.0	33	0	4	0	0	8	0	0	14	0	7	0	0	0	20 Lines, Michael	
7996	4.0	41	0	12	0	0	11	0	0	5	5	6	2	0	0	8 Millan, Arturo	
7998	4.0	25	1	3	0	2	3	2	2	3	3	6	0	0	0	17 Lambe, Michael	PT
8000N	4.0	23	0	3	1	0	3	3	1	4	1	6	1	0	0	14 Lieberknecht, Scott	PT
Course Total		173	3	28	2	5	33	9	4	34	17	35	3	0	0	87	
MATH-176 Precalculus: Functions/Graphs																	
8001	6.0	44	0	3	0	0	10	0	0	6	5	20	0	0	0	5 Hicks, Shawn	
8002	6.0	32	0	7	0	0	8	0	0	1	4	11	0	0	0	10 Davis, Stephen	
8003	6.0	48	0	14	4	1	7	3	2	4	9	3	1	0	0	9 Daud, Solomon	PT
8004	6.0	29	0	4	0	0	4	0	0	10	5	5	1	0	0	16 Wilson, John	PT
Course Total		153	0	28	4	1	29	3	2	21	23	39	2	0	0	40	

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MATH-177 Intro to Teach Secondary Math																		
9729	3.0	7	0	5	0	0	0	0	0	0	0	2	0	0	0	0	Davis, Stephen	
Course Total		7	0	5	0	0	0	0	0	0	0	2	0	0	0	0		
MATH-178 Calculus-Bus-Soc & Behav Sci																		
8005	4.0	11	0	5	0	0	3	0	0	2	0	1	0	0	0	4	Salehpoor, Zahra	PT
8006	4.0	34	2	5	3	4	3	2	1	9	1	4	0	0	0	3	Greenheck, Daniel	PT
8007	4.0	31	0	12	0	0	11	0	0	8	0	0	0	0	0	7	Curran, Thomas	PT
8008	4.0	44	3	11	1	4	13	0	0	6	2	4	0	0	0	1	Giles, Sharon	
8010	4.0	29	0	9	0	0	13	0	0	4	0	3	0	0	0	11	Millan, Arturo	
8011	4.0	25	1	2	4	0	3	1	2	5	3	4	0	0	0	11	Ridgway, Rob	PT
8012N	4.0	17	6	1	0	1	2	3	0	1	2	1	0	0	0	11	Ridgway, Rob	PT
8013N	4.0	22	3	7	4	1	4	0	0	1	1	1	0	0	0	2	Vallejo, Cheryl	PT
Course Total		213	15	52	12	10	52	6	3	36	9	18	0	0	0	50		
MATH-180 Analytic Geometry & Calculus I																		
8014	5.0	24	0	8	0	0	4	0	0	3	2	7	0	0	0	4	Wilborn, Brenda	PT
8015	5.0	20	0	5	0	0	2	0	0	6	2	5	0	0	0	7	Wilborn, Brenda	PT
8016	5.0	37	0	9	0	0	15	0	0	3	5	5	0	0	0	9	Millan, Arturo	
8017	5.0	34	2	8	1	0	5	1	0	3	7	4	2	1	0	7	Vanden-Eynden, Jennifer	
8018	5.0	31	4	5	0	1	7	4	1	5	2	1	0	1	0	13	Funk, Raymond	
8019N	5.0	15	1	3	0	0	3	0	1	5	1	0	1	0	0	8	Vanden-Eynden, Jennifer	XP
8020N	5.0	25	0	3	4	0	4	2	1	4	2	5	0	0	0	4	Lambe, Michael	PT
Course Total		186	7	41	5	1	40	7	3	29	21	27	3	2	0	52		
MATH-245 Discrete Math																		
8022	3.0	9	0	1	0	0	3	0	0	2	1	2	0	0	0	13	Lee, Cary	
Course Total		9	0	1	0	0	3	0	0	2	1	2	0	0	0	13		

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MATH-280 Analytic Geometry/Calculus II																		
8023	4.0	19	0	2	0	0	7	0	0	8	2	0	0	0	0	15	La-Puma, Russell	PT
8024	4.0	46	0	5	1	4	10	2	7	4	6	6	1	0	0	8	Manchester, Corey	
8025	4.0	26	1	2	0	0	2	6	3	7	2	3	0	0	0	16	Waller, John	
8026	4.0	35	1	7	2	5	7	1	3	7	0	2	0	0	0	7	Funk, Raymond	
8027N	4.0	22	2	1	1	0	2	2	0	8	1	5	0	0	0	15	Burrus, Patrick	PT
Course Total		148	4	17	4	9	28	11	13	34	11	16	1	0	0	61		
MATH-281 Intermediate Calculus																		
8028	4.0	35	0	9	0	0	12	0	0	8	0	6	0	0	0	17	Lines, Michael	
8029N	4.0	39	0	16	3	0	10	0	0	8	2	0	0	0	0	7	La-Puma, Russell	PT
Course Total		74	0	25	3	0	22	0	0	16	2	6	0	0	0	24		
MATH-284 Linear Algebra																		
8030N	3.0	40	2	5	3	2	5	3	3	12	3	2	0	0	0	6	Funk, Raymond	
Course Total		40	2	5	3	2	5	3	3	12	3	2	0	0	0	6		
MATH-285 Differential Equations																		
8031	3.0	31	2	5	0	1	6	2	0	5	7	3	0	0	0	10	Pereira, Shirley	
Course Total		31	2	5	0	1	6	2	0	5	7	3	0	0	0	10		
Subject Total		4518	85	618	69	101	749	80	87	735	355	596	759	280	0	1254		
Division Total		4518	85	618	69	101	749	80	87	735	355	596	759	280	0	1254		

Appendix 4

Annual Progress Reports

Educational Master Plan
Progress Report – 2006-07

Department/Program: Mathematics

Activity	Was this activity carried over for 2007-08? (Y or N)	In Process (check box)	Completed (check box)	If completed, what were the results?	Comments
This column will be filled in with activity information from the submittal of your 2006-07 Educational Master Plan.					
Hire at least three additional new full-time faculty members in Mathematics	Y	Y	N	Arturo Millan was hired for Spring 2007 to replace Linda Langley. .	Will continue to ask for 3 new full-time positions next year.
Attain 0.2 LED reassigned time for a full-time faculty member to oversee the day-to-day operations of the math study center.	Y	Y	N		
Continue to work with other institutions on Teacher-Preparation.	N	Y	N	Shirley Pereira and Debbie Justeson continue to work with faculty at SDSU, Cuyamaca, and other local community colleges in the area fo Teacher Preparation.	
Apply for and receive grants to supplement our funding.	N	Y	Y	The Mathematics Department received $56,000 in Basic Skills Block Grant money.	
Create a permanent ½ time position for a tutor for Math 103.	N	N	N	The Math Study Center absorbed this need for a Math 103 tutor.	
Continue to work on and assess Student Learning Outcomes.	Y	Y	N	All Math 90 SLOs have been completed and assessment is ongoing. All Math 175 SLOs have been completed and assessment will begin Spring 2008.	

Educational Master Plan
Progress Report – 2006-07

Department/Program: Mathematics 2007-2008

Activity	Was this activity carried over for 2007-08? (Y or N)	check box: In Process	check box: Completed	If completed, what were the results?	Comments
This column will be filled in with activity information from the submittal of your 2006-07 Educational Master Plan.					
Hire at least three additional new full-time faculty members in Mathematics	Y	Y	N	Corey Manchester was hired into a brand new full-time position beginning Spring 2008.	As of Spring 2008, Math has 18 full-tiem faculty. We are asking to be at 20 full-time faculty.
Attain 0.3 LED reassigned time for a full-time faculty member to oversee the day-to-day operations of the math study center.	Y	Y	Y	We received 0.35 LED reassign time in Fall 2007 and Spring 2008 for a Math Study Center Coordinator from the President's Discretionary Fund. we will have to reapply every year for this funding.	Nemie Capacia was nominated and voted in as the MSC Coordinator for the next 2 years
Obtain the sufficient funds to cover all costs to run the Math Study Center.	Y	Y	N		We have not obtained extra funding. Instructors continue to offer their TA hours/grading hours to the center.
Create a staff development committee within the department to plan staff development activities	N	N	N		
The mathematics department will re-assess and re-define the role of the course coordinator.	Y	N	N		
Continue to work on and assess Student Learning Outcomes.	Y	Y	N	All Math 90 SLOs have been completed and assessment is ongoing. All Math 175 SLOs have been completed and assessment will begin Spring 08	

ANNUAL PLANNING 2009-10 PROGRESS REPORT

Please fill out the form below on ALL activities that appeared in your **2009-10** Annual Action Plan (please see the DPM archive link http://web1.gcccd.edu/emp/emp2009). **Include all activities that you planned for that year whether you requested funding or not and whether you finished them or not.** Please add additional rows if needed.

**Save a copy of this report using your department name as part of the file name.

DUE DATE: This report is due to the division deans/council VPs by October 15, 2010.

Department/Program: MATHEMATICS

	Check all that apply						
Activity (cut and paste a brief description of your activity from the DPM)	**In Process**	**Completed**	**Funded**	**Requested funding, but did not receive it**	**Did not require funding**	**If completed, what were the outcomes of the activity?**	**Provide a summary of qualitative and/or quantitative data to show that the outcomes you listed to the left were achieved.**
Centralize the mathematics program into a new Mathematics Building.						Not completed	NA
Dedicated space for Developmental Math Tutoring		x	x			Used room 70-113 daily for developmental math peer tutoring	Hourly head counts were taken and students were tracked through red canyon software. In Spring10, there were 829 visits to the BSI tutoring, with 123 different students attending.
Pilot the "Math Academy" program in Fall 2009.		x	x			Offered 1 section of Math Academy (MA) in Fall09 and Spring10	Success rate study was conducted. Sample sizes are low for MA data. **Math 88**: • 68.3% of MA passed (N=82) • 59.2% of non-MA passed (N=422) **Math 90**: • 64.8% of MA passed (N=54) • 48.3% of non-MA passed (N=1771)

Provide workshops to our developmental math students throughout the semester.		x	x			Each semester, 14 faculty-led workshops were held(2 sessions per topic).	Total attendance for the developmental math workshops was 294 students
Provide weekly study groups to our prealgebra (Math 88)and beginning algebra (Math 90)students throughout the semester.		x	x			Study groups were offered throughout the fall and spring semester.	Attendance at study groups were counted as part of daily basic skill tutoring headcount.
Summer Prep Program for Math 90, 110.						Not completed. Summer session cut, so this was not developed.	NA
Hire a TA to develop multiple choice questions with carefully selected distracters to determine the level of understanding.		x	x			TA developed multiple choice questions for Math 88. However, there were issues with the clickers and more training is requested. As soon as we realized a problem, we did not use the remaining funds.	No data, as the questions were not implemented.
Increase our 3-unit Math 160 (Elementary Statistics) to 4-units.	x					Submitted curriculum paperwork for consideration Fall 2010.	
The Mathematics department will redefine and reassess the role of course coordinator.		x			x	Each multi-section course has a "course coordinator" assigned. This faculty member hands out sample syllabi, pacing schedule, handouts, exams, etc to adjunct faculty teaching the course. Also, each course coordinator manages the SLO assessments.	List of course coordinators is distributed to all math faculty during Flex Week, and as new adjuncts are hired. SLO information is sent out to faculty every semester that assessments are conducted.
Hire 3 new full-time tenured track faculty						Hiring freeze.	
Hire a new full-time Developmental Mathematics instructor.						Hiring freeze.	
Hire 1 new full-time tenured track REPLACEMENT faculty in Mathematics.						Hiring freeze.	

Appendix 5

SLO Assessment Analyses

ANNUAL SLO REPORT[1]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	**Math 80 Fall 2009**	**Math 80 Fall 2009**	**Math 80 Spring 2010**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to solve simple application problems that may include ratios and proportions. Determine the unit rate: 120 gallons of heating oil for 15 days	A student will be able to verify solutions to algebraic equations. If $? = 8$, is the statement $? + 1 = 9$ true?	A student will be able to solve simple application problems that may include ratios and proportions. If 16 ounces of organic orange juice cost $4.00, how much would an ounce cost?
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[1] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	100% of the students who passed the class received a passing score on this assessment item.	100% of the students who passed the class received a passing score on this assessment item.	85% of students who passed the class received a passing score on this assessment item.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015

ANNUAL SLO REPORT[2]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	**Math 80 Spring 2010**	**Math 88 Fall 2009**	**Math 88 Fall 2009**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to verify solutions to algebraic equations. Show that this statement is true or false. If $\square = 2$, is the statement $\square + 4 = 6$ true?	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure. Evaluate the following expression if x = 3 and y = 1: $2x^2 + 3xy$	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure. Simplify: $7a^2 + 5a - 9 + 2a^2 - 7$
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[2] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	96% of the students who passed the class received a passing score on this assessment item.	86% of the students who passed the class received a passing score on this assessment item.	68% of students who passed the class received a passing score on this assessment item.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ______________ ☐Develop new methods of evaluating student work, such as: ______________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ______________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ______________ ☐Develop new methods of evaluating student work, such as: ______________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ______________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ______________ ☐Develop new methods of evaluating student work, such as: ______________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ______________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 205	☒Fall OR ☐Spring Year: 2015

ANNUAL SLO REPORT[3]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	**Math 88 Fall 2009**	**Math 88 Spring 2010**	**Math 88 Spring 2010**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to translate a written statement into a mathematical statement Translate: Five more than twice a number	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure. Convert 3210 ml to liters.	A student will be able to translate a written statement into a mathematical statement Translate: The difference between four and twice a number
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[3] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	75% of the students who passed the class received a passing score on this assessment item.	85% of the students who passed the class received a passing score on this assessment item.	78% of students who passed the class received a passing score on this assessment item.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ______________ ☐Develop new methods of evaluating student work, such as: ______________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ______________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ______________ ☐Develop new methods of evaluating student work, such as: ______________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ______________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ______________ ☐Develop new methods of evaluating student work, such as: ______________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ______________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015

ANNUAL SLO REPORT[4]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	**Math 90 Fall 2009**	**Math 90 Fall 2009**	**Math 90 Fall 2009**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	The student will be able to solve linear, quadratic rational and radical equations, linear systems and linear inequalities. Solve: $\frac{q+2}{3}+\frac{q-5}{5}=\frac{7}{3}$	The student will be able to solve linear, quadratic rational and radical equations, linear systems and linear inequalities. Solve: $x^2-x-20=0$	The student will be able to solve linear, quadratic rational and radical equations, linear systems and linear inequalities. Graph: $y<2x-1$
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[4] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	70% of the students who passed the class received a passing score on this assessment item. Students were forgetting to multiply both sides of the equation with the LCD to clear fractions.	78% of the students who passed the class received a passing score on this assessment item. Students were not factoring properly or stops at factoring the trinomial without solving for x.	64% of students who passed the class received a passing score on this assessment item. Students were forgetting to shade the appropriate area and the difference between the use of a dashed line or a solid line.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: new worksheets to address this topic. ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015

ANNUAL SLO REPORT[5]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	**Math 90 Spring 2010**	**Math 97 Fall 2009**	**Math 97 Fall 2009**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	The student will be able to solve linear, quadratic rational and radical equations, linear systems and linear inequalities. Solve the following equation for x: $\sqrt{2x-12}=4$	- A student will use geometric properties of figures in two or three dimensions to find related quantities. - A student will translate written language into mathematical statements, interpreting information by sketching relevant diagrams and by applying algebraic techniques to solve geometric problems. a. Find the area of the triangle. b. If the sides of the triangle are doubled, what happens to its area?	- A student will use geometric properties of figures in two or three dimensions to find related quantities. - A student will translate written language into mathematical statements, interpreting information by sketching relevant diagrams and by applying algebraic techniques to solve geometric problems. A rectangular garden is surrounded on all sides by a path that is 3 feet wide. The dimensions of the courtyard, including path and garden, are 24 feet by 30 feet. How much fencing material is needed to enclose only the garden?
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[5] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	80% of the students who passed the class received a passing score on this assessment item.	68% of the students who passed the class received a passing score on this assessment item.	64% of students who passed the class received a passing score on this assessment item.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________ ☐Develop new methods of evaluating student work, such as: ____________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________ ☐Develop new methods of evaluating student work, such as: ____________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________ ☐Develop new methods of evaluating student work, such as: ____________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☐Spring Year: 2015

ANNUAL SLO REPORT[6]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	**Math 97 Fall 2009**	**Math 97 Spring 2010**	**Math 103 Fall 2009**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	- A student will use geometric properties of figures in two or three dimensions to find related quantities. - A student will translate written language into mathematical statements, interpreting information by sketching relevant diagrams and by applying algebraic techniques to solve geometric problems. Chords AC and BD intersect at Point E in circle O. Label the diagram with the following measures: AE = x – 3, EC = 6, BE = x + 1, and ED = 3. (a) Write and solve an algebra equation to find the value of x. (b) Find the lengths of AE, BE, AC and BC	- A student will use geometric properties of figures in two or three dimensions to find related quantities. - A student will translate written language into mathematical statements, interpreting information by sketching relevant diagrams and by applying algebraic techniques to solve geometric problems. Given the figure shown below with $\overline{AB} \parallel \overline{CD}$ and $\overline{AD} \parallel \overline{BC}$. Determine the measures of $\angle 1$ through $\angle 12$.	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to simplify or solve them.
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	X Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Assignments based on rubrics (essays/reports, projects, performance analysis) Assignments based on checklists Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. Student Self-Assessments (reflective journals, surveys) Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) Student Satisfaction Survey Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) Other (please describe):

[6] This document was adapted from templates provided by Skyline College.

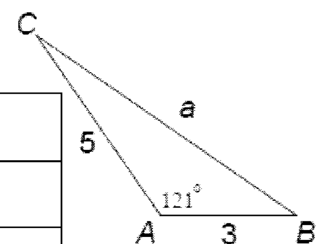
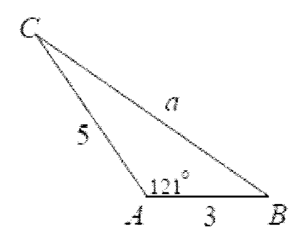
Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	54% of the students who passed the class received a passing score on this assessment item. Students could not remember the relationship between the chords in the given diagram.	85% of the students who passed the class received a passing score on this assessment item.	The students were asked to solve a rational equation and an exponential equation. With pass rates of 73% and 77% respectively, we concluded that the assessment worked and the students mastered this SLO.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: Spend more time on this topic. ☐Develop new methods of evaluating student work, such as: __________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: __________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: __________________ ☐Develop new methods of evaluating student work, such as: __________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: __________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	XConduct further assessment related to the issue and outcome Conduct according to the schedule with no changes made to the assessment or SLO Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: __________________ Develop new methods of evaluating student work, such as: __________________ Plan purchase of new equipment or supplies needed for modified student activities, such as: __________________ Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) Engage in professional development about best practices for this type of class/activity Revise the course sequence or prerequisites Revise the course syllabus or outline (i.e. change in course topics) Revise the SLO Unable to determine what should be done Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2015	☒Fall OR ☒Spring Year: 2015	Fall OR XSpring Year:2015

Course #	**Math 103 Spring 2010**	**Math 110 Fall 2009/Spring 2010 Intermediate Algebra**	**Math 120 Spring 2010**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to simplify or solve them.	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to solve them.	A student will be able to employ both inductive and deductive reasoning appropriately.
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	XItem analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Assignments based on rubrics (essays/reports, projects, performance analysis) Assignments based on checklists Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. Student Self-Assessments (reflective journals, surveys) Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) Student Satisfaction Survey Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):
Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	The students were asked to solve a log equation. The pass rate was 77% and our conclusion was that the assessment worked and the students mastered this SLO	The students understand how to convert logarithms to exponential form and are then able to solve the "new" equation (degree one or two) – 79.5% success rate. However, when we added in one extra step using the properties of logarithms, the success rates went down by almost 20% -- 60.1% pass rate. e.g. $\log_2 3 + \log_2 (x+1) = 3$. The students also did quite well at solving an exponential equation (having to take the logarithm of each side of the	We knew the question we were using to assess the SLO was a rather easy one (since we also knew assessing the SLO's for a course that uses two entirely different textbooks would be problematic), and the results bore that out. We decided to ramp up the difficulty for next time.

		equation) – 75.1% success rate. We also looked at rational equations which the students excelled at (86.5% success rate). We felt this was due to it being a repeated topic rather than a new topic for Math 110. As instructors, more time needs to be spent on the properties of logarithms and solving multi-step problems.	
Action Plan	Conduct further assessment related to the issue and outcome Conduct according to the schedule with no changes made to the assessment or SLO Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ Develop new methods of evaluating student work, such as: ____________________ Plan purchase of new equipment or supplies needed for modified student activities, such as: Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) Engage in professional development about best practices for this type of class/activity Revise the course sequence or prerequisites Revise the course syllabus or outline (i.e. change in course topics) Revise the SLO Unable to determine what should be done XOther (please describe): No further actions necessary for this SLO	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☒Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☒Other (please describe): We have instructed the teachers to spend a bit more time on the properties of logarithms. The course coordinator will send out a reminder to the math 110 instructors during the semester about this issue.	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☒Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2013	☒Fall OR ☐Spring Year: 2013	☒Fall OR ☐Spring Year: 2010

Course # MATH 160	**Math 160 Fall 2009**	**Math 160 Spring 2010**	**Math 160 Spring 2010**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to use the appropriate technology to analyze statistical problems.	A student will be able to categorize data set and use appropriate methods to find, summarize, and visually display statistics about the data set. The student will also be able to interpret visual display of statistical data.	A student will be able to interpret, communicate, and assess the validity of statistical processes and conclusions.
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):
Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and	We learned that both the students and the instructors had a difficult time determining which procedure was appropriate for the given problem. However, aside from the procedure itself, the students were successful in using technology (calculator) to get to	We learned that students can determine probabilities from a graphical display (histogram), but cannot successfully determine the location of the median from simply looking at the histogram. The assessment worked. We now know	The students were successful in this area, and the assessment was successful.

needs were revealed?) Did the assessment work, and if not, what needs to be revised?	an answer. The assessment did not work. It became clear that we need to make sure our instructors understand the appropriate procedure (Z vs. T)	that we need to focus on conceptual understanding of measures of center and how they relate to graphical displays	
Action Plan	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ensuring that both instructors and students know the difference between the appropriateness of various statistical procedures ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☐Fall OR ☒Spring Year: 2012	☐Fall OR ☒Spring Year: 2011	☒Fall OR ☐Spring Year: 2012

Course #	**Math 170 Trigonometry** **Fall 2009**	**Math 170 Trigonometry** **Fall 2009**	**Math 176: PreCalculus** **Fall 2009**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to categorize trigonometric problems and use appropriate theorems, formulas, and algorithms to solve them.	A student will be able to use the appropriate technology to solve problems requiring trigonometry.	A student will be able to categorize pre-calculus problems and use appropriate theorems, formulas, and algorithms to solve them.
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Given $\sin x = \frac{3}{5}$ and $\frac{\pi}{2} < x < \pi$, determine the value of $\cos 2x$.	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Solve triangle ABC given $b = 5$, $c = 3$ and $\angle A = 121°$.  $a =$ $B =$ $C =$	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Questions put on the final exam for the purpose of assessing the SLO: 1. Let $P(x) = 6x^3 + 11x^2 - 3x - 2$. a. Factor $P(x)$ completely and find all its zeros. Use synthetic division or long division and show all your work. b. Find the y-intercept of the graph. c. Sketch the graph of the function. 2. Solve the triangle. Round answers to the nearest tenth. 

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	Data was to be received from three instructors, yet reported. Of these two sections, 65 students were enrolled, 59 took the final, and 46 passed the course. 35 students passed the course and passed this SLO question or 76% of the students that passed the course.	Data was to be received from three instructors, yet reported. Of these two sections, 65 students were enrolled, 59 took the final and 46 passed the course. 34 students passed the course and passed this SLO question or 74% of the students that passed the course	The students did very well on the first question – 82.4% success rate. The second question required using The Law of Cosines. The success rate was not as good (61.5%). Students, in general, seem to struggle more with the trigonometry part of this course. We will investigate this further with future assessments.
Action Plan	☒Conduct further assessment related to the issue and outcome ☒Engage in professional development about best practices for this type of class/activity • We discuss the appropriateness, the student outcomes, the clarity and the difficulty of the given question. We felt that student who complete this course "should be able to do this" problem. We agreed that it was a very appropriate final exam question for the course. We felt good about the results of 76% passing the course and the SLO but also feel we can do better. ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☒Conduct further assessment related to the issue and outcome ☒Engage in professional development about best practices for this type of class/activity • We discuss the appropriateness, the student outcomes, the clarity and the difficulty of the given question. We felt that student who complete this course "should be able to do this" problem. We agreed that it was a very appropriate final exam question for the course. We felt good about the results of 74% passing the course and the SLO but also feel we can do better. ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: __________________ ☐Develop new methods of evaluating student work, such as: __________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: __________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☒Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: Fall 2015	☒Fall OR ☐Spring Year: Fall 2015	☒Fall OR ☐Spring Year: 2013

Course #	**Math 178 Spring 2010**	**Math 178 Spring 2010**	**Math 180 Fall 2009/Spring 2010**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	Find the limit: $\lim_{x \to 4} \frac{x^2 - 16}{x - 4}$	Find the derivative of the function: $f(x) = (2x+3)^5$	A student will be able to define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒ Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐ Assignments based on rubrics (essays/reports, projects, performance analysis) ☐ Assignments based on checklists ☐ Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐ Student Self-Assessments (reflective journals, surveys) ☐ Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐ Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐ Student Satisfaction Survey ☐ Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐ Other (please describe):	☒ Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐ Assignments based on rubrics (essays/reports, projects, performance analysis) ☐ Assignments based on checklists ☐ Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐ Student Self-Assessments (reflective journals, surveys) ☐ Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐ Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐ Student Satisfaction Survey ☐ Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐ Other (please describe):	☒ Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐ Assignments based on rubrics (essays/reports, projects, performance analysis) ☐ Assignments based on checklists ☐ Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐ Student Self-Assessments (reflective journals, surveys) ☐ Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐ Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐ Student Satisfaction Survey ☐ Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐ Other (please describe):
Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	The students overall did well on the concept of the limit. The one area of improvement is to emphasize the undefined value 0/0.	The students showed that they had command of the concept for finding the derivative using the chain rule.	The students were asked to solve a limit, derivative and integration problems. The students did well (92%, 78.7%) on limits, and did well (94%, 83.1%) on derivatives. The students struggled more with the integration, and specifically "u-substitution" passing at a rate of 62% and 70%.

Action Plan	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: emphasize the undefined value 0/0______________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☒Unable to determine what should be done (well mastered) ☐Other (please describe):	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☒Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☒Other (please describe): Calculus I instructors will be asked to spend a little more time on u-substitution.
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year:2015	☒Fall OR ☐Spring Year:2015	☒Fall OR ☐Spring Year: 2015

Course #	**Math 280 Spring 2010**
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to determine the convergence or divergence of sequences and series.
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):
Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	This SLO was assessed during the Spring semester of 2010. The success rate was below passing. Members met and discussed the success rate and found an appropriate question for re-assessment during the Fall 2010 semester.

Action Plan	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year:2010

ANNUAL SLO REPORT[1]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	Math 80	Math 80	Math 80
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to simplify and operate on fractions. Subtract $\frac{2}{3}-\frac{1}{5}$	A student will be able to simplify and operate on fractions. Multiply $\frac{1}{3}\cdot\frac{6}{7}$	A student will be able to simplify and operate on fractions. Add and simplify $\frac{1}{6}+\frac{2}{9}$
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[1] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	91% of the students who passed the class received a passing score on this assessment item.	84% of the students who passed the class received a passing score on this assessment item.	53% of students who passed the class received a passing score on this assessment item. Students had difficulty finding the LCD of two numbers with common factors (6 and 9). When students were asked a similar problem last semester using 3 and 5 as denominators, more students did the problem correctly since the LCD was easier to find.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: Give more examples on finding the LCD between two denominators especially those involving numbers that have common factors like 6 and 9. ☐Develop new methods of evaluating student work, such as: ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2010	☒Fall OR ☐Spring Year: 2010	☐Fall OR ☒Spring Year: 2011

ANNUAL SLO REPORT[2]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

<table>
<tr><td>Course #</td><td>Math 80</td><td>Math 88</td><td>Math 88</td></tr>
<tr><td>SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)</td><td>A student will be able to simplify and operate on fractions.

Divide and simplify $\frac{2}{5} \div \frac{8}{25}$</td><td>A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.
Complete the table. Write fractions in simplest form.<table><tr><th>Percent</th><th>Decimal</th><th>Fraction</th></tr><tr><td>45%</td><td></td><td></td></tr><tr><td></td><td>0.135</td><td></td></tr><tr><td></td><td></td><td>4/5</td></tr><tr><td>7%</td><td></td><td></td></tr></table></td><td>A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.

Add and simplify $-\frac{1}{6} + \frac{2}{9}$</td></tr>
<tr><td>Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site</td><td>☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes)
☐Assignments based on rubrics (essays/reports, projects, performance analysis)
☐Assignments based on checklists
☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc.
☐Student Self-Assessments (reflective journals, surveys)
☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.)
☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.)
☐Student Satisfaction Survey
☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs)
☐Other (please describe):</td><td>☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes)
☐Assignments based on rubrics (essays/reports, projects, performance analysis)
☐Assignments based on checklists
☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc.
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☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs)
☐Other (please describe):</td><td>☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes)
☐Assignments based on rubrics (essays/reports, projects, performance analysis)
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☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc.
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☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.)
☐Student Satisfaction Survey
☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs)
☐Other (please describe):</td></tr>
</table>

[2] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	96% of the students who passed the class received a passing score on this assessment item.	84% of the students who passed the class received a passing score on this assessment item.	89% of students who passed the class received a passing score on this assessment item.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☐Fall OR ☒Spring Year: 2011	☒Fall OR ☐Spring Year: 2010	☐Fall OR ☒Spring Year: 2011

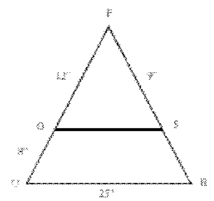
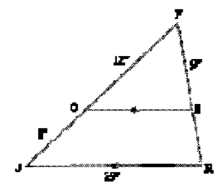
ANNUAL SLO REPORT[3]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	Math 88	Math 90	Math 90
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages. Divide and simplify $-\frac{2}{5} \div \frac{8}{25}$	A student will be able to apply appropriate algebraic methods to solve word problems. Translate the following word problem into an equation and solve. The length of a rectangle is 5 inches more than the width. The perimeter is 34 inches. Find the length and the width of the rectangle.	A student will be able to apply appropriate algebraic methods to solve word problems. Translate the following word problem into an equation and solve. The length of a rectangle is 5 inches more than the width. The perimeter is 34 inches. Find the length and the width of the rectangle. (Hint: $P = 2l + 2w$)
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[3] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	94% of the students who passed the class received a passing score on this assessment item.	57% of the students who passed the class received a passing score on this assessment item. Many students simply left the problem blank. Those who did it either could not remember the formula for the perimeter of a rectangle or could not translate the "5 inches more than the width" part of the problem.	68% of students who passed the class received a passing score on this assessment item. The formula helped some students but those who could not do it still had difficulty translating "5 inches more than the width" part of the problem as seen last semester.
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ________________ ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: Spend more time covering word problems in class. Give more examples and worksheets on word problems. ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: Continue spending more time on word problems throughout the semester. ☐Develop new methods of evaluating student work, such as: ________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☐Fall OR ☒Spring Year: 2011	☒Fall OR ☐Spring Year: 2010	☐Fall OR ☒Spring Year: 2011

ANNUAL SLO REPORT[4]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	Math 97	Math 97	
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to develop and evaluate conjectures about geometric objects and the relationships between them. Given the figure shown below with $OS \parallel UR$, find the following: **A.** SR **B.** OS 	A student will be able to develop and evaluate conjectures about geometric objects and the relationships between them. Given the figure shown below, show that ΔFOS is similar to ΔFUR 	
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

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Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	95% of the students who passed the class received a passing score on this assessment item.	16% of the students who passed the class received a passing score on this assessment item. Students did better last semester when they were asked to find missing sides of 2 similar triangles but had difficulty proving that they are similar. Since the numbers were left on the diagram, they proved the triangles were similar using circular logic.	
Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: Spend more time on proofs such as this instead of simply asking for missing parts of a triangle. ☐Develop new methods of evaluating student work, such as: ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: new worksheets to address this topic. ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2010	☐Fall OR ☒Spring Year: 2011	☐Fall OR ☐Spring Year:

ANNUAL SLO REPORT[5]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	Fall 2010 Math 103 Intermediate Algebra	Spring 2011 Math 103 Intermediate Algebra	
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	• A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations (SLO #2)	• A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations (SLO #2)	
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	The students were asked to graph a parabola after find the x and y intercepts and the vertex. With a pass rate of 68% we concluded the topic was not mastered and that more focus should be spent on the meaning of the x and y intercepts.	The students were asked to graph a parabola after find the x and y intercepts and the vertex. With a pass rate of 67.4% we concluded the topic was not mastered and that more focus should be spent on the meaning of the x and y intercepts.	
Action Plan	☒Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☒Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☐Fall OR ☒Spring Year: 2011	☒Fall OR ☐Spring Year: 2013	☐Fall OR ☐Spring Year:

ANNUAL SLO REPORT[6]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	Fall 2010 Math 110 Intermediate Algebra	Spring 2011 Math 110 Intermediate Algebra	
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	• A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations (SLO #3)	• A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations (SLO #3)	
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

[6] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	Problem: Graph (vertex, y-intercept, x-intercepts): $y = x^2 - 4x + 3$. Only 70.1% of the students were successful on the problem which was "successful" but disappointing. We decided that more emphasis needs to be put on pulling all the ideas into a graph. Students knew how to factor and solve a degree 2 equation, but many didn't realize these were the x-intercepts.	Problem: Graph (vertex, y-intercept, x-intercepts): $y = x^2 - 4x + 3$. This was the same problem as the previous semester. This time the success rate was 86%. A far better outcome their prior. We feel the instructors put more stress on not only building the various topics with degree 2 equations, but then pulling the ideas together and putting them in a graph. We thought it was a great job!	
Action Plan	☒Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☐Fall OR ☒Spring Year: 2011	☐Fall OR ☒Spring Year: 2014	☐Fall OR ☐Spring Year:

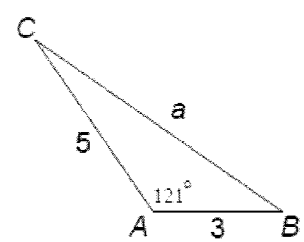
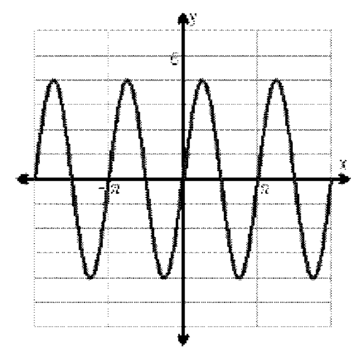
ANNUAL SLO REPORT[7]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course # MATH 160			
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to categorize data set and use appropriate methods to find, summarize, and visually display statistics about the data set.	The student will also be able to interpret visual display of statistical data	
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):
Assessment Analysis (Please write a narrative on the following: What did you	We learned that our students are actually doing a fairly good job at understanding what is asked and how to proceed to a correct answer via calculations. Overall, the results	We learned that our students are still having a hard time reading, interpreting, and using statistical graphs to answer questions. We've revisited this issue, but are still	

[7] This document was adapted from templates provided by Skyline College.

learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	exhibited success for this particular assessment of this particular SLO	needing to make more progress in this area.	
Action Plan	☒Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☒Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☒Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year:2014	☒Fall OR ☐Spring Year:2014	☐Fall OR ☐Spring Year:

ANNUAL SLO REPORT[8]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

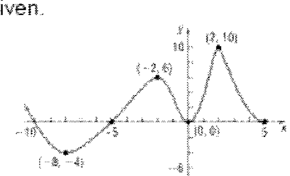
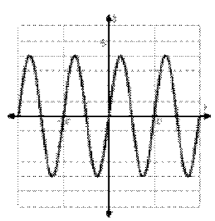
Course # Math 170			
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to categorize trigonometric problems and use appropriate theorems, formulas, and algorithms to solve them.	A student will be able to use the appropriate technology to solve problems requiring trigonometry.	A student will be able to formulate, analyze, and differentiate trigonometric functions numerically, graphically, and symbolically and have the ability to transition between these representations.
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Given $\sin x = \frac{3}{5}$ and $\frac{\pi}{2} < x < \pi$, determine the value of $\cos 2x$.	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Solve triangle ABC given $b = 5$, $c = 3$ and $\angle A = 121°$. $a =$ $B =$ $C =$ 	☒ Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) 

[8] This document was adapted from templates provided by Skyline College.

Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	Data was to be received from three instructors, yet reported. Of these two sections, 65 students were enrolled, 59 took the final, and 46 passed the course. 35 students passed the course and passed this SLO question or 76% of the students that passed the course.	Data was to be received from three instructors, yet reported. Of these two sections, 65 students were enrolled, 59 took the final and 46 passed the course. 34 students passed the course and passed this SLO question or 74% of the students that passed the course.	Data was to be received from three sections. In these three sections, 97 students were enrolled, 79 took the final and 57 passed the course. 45 students passed the course and passed this SLO question or 79% of the students that passed the course.
Action Plan	☒Engage in professional development about best practices for this type of class/activity We discuss the appropriateness, the student outcomes, the clarity and the difficulty of the given question. We felt that student who complete this course "should be able to do this" problem. We agreed that it was a very appropriate final exam question for the course. We felt good about the results of 76% passing the course and the SLO but also feel we can do better.	☒Engage in professional development about best practices for this type of class/activity We discuss the appropriateness, the student outcomes, the clarity and the difficulty of the given question. We felt that student who complete this course "should be able to do this" problem. We agreed that it was a very appropriate final exam question for the course. We felt good about the results of 74% passing the course and the SLO but also feel we can do better.	☒Engage in professional development about best practices for this type of class/activity We discuss the appropriateness, the student outcomes, the clarity and the difficulty of the given question. We felt that student who complete this course "should be able to do this" problem. We agreed that it was a very appropriate final exam question for the course. We felt good about the results of 79% passing the course and the SLO but also feel we can do better.
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: Fall 2009	☒Fall OR ☐Spring Year: Fall 2009	☐Fall OR ☒Spring Year: Fall 2011

ANNUAL SLO UPDATE Math 176

Please fill out the form below on ALL Course-level SLOs you've assessed over the last 2 semesters. Please add additional rows if needed.

Course # and SLO wording (ex. Hist 108(SLO 1) – Students will be able to …)	Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	Course SLO Action Plan (please indicate how you will use these course assessment results and analysis for course improvement)	Semester when Next Assessment of this SLO will take place	Program Action Plan (please indicate how you will use these SLO assessment results and analysis for continuous program improvement)
Math 176 (SLO 3) A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the precalculus level and have the ability to transition between these representations.	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) Questions put on the final exam for the purpose of assessing the SLO: **1**. The graph of a function f is given.  a) Determine the domain of f. b) Determine the range of f. c) On what interval(s) is f decreasing? d) Find the local maximum value(s). e) Find the average rate of change of f between $x=-8$ and $x=2$. **2**. Determine the equation of the trigonometric function graphed below. 	On the first question we tried to gather results for each individual part and an overall result. There was some confusion about this so only the individual results were complete. Success rates were as follows: a) 82.2% b) 46.6% c) 60.3% d) 83.6% e) 58.9% For the second question the success rate was 69.9%. We discussed the results, the difficulty of the questions, as well as some of the common errors that were made on the questions. We agreed that the questions were at an appropriate level. We were a little disappointed with the results and will work on improving our results for future assessments.	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: __________ ☐Develop new methods of evaluating student work, such as: __________ ☒Engage in professional development about best practices for this type of class/activity ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Other (please describe):	☒Fall OR ☐Spring Year:2014	☐Plan purchase of new equipment or supplies needed for modified student activities, such as: __________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Revise the course sequence or prerequisites ☒No program action will be taken ☐Other (please describe):
	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to		☐Conduct further	☐Fall OR	☐Plan purchase of

	specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Other (please describe):		assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________ ☐Develop new methods of evaluating student work, such as: ____________ ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Other (please describe):	☐Spring Year:	new equipment or supplies needed for modified student activities, such as: ____________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Revise the course sequence or prerequisites ☐No program action will be taken ☐Other (please describe):

Six-Year SLO Plan can be found at:
http://www.grossmont.edu/student_learning_outcomes/SLO%20Spreadsheet%20home.htm

ANNUAL SLO REPORT[9]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course #	Math 180 (Fall 10/Spring 11)		
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.		
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

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Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	Students struggled when given a graph of the first derivative f '(x) and then asked to describe f(x) from it. Overall 53.5% of students who passed Math 180 also passed this multipart question. Many assumed the graph was of f(x), not f '(x). However 71% knew that the integral was positive from the graph. We revised the question for Spring, giving students the function $f(x) = \frac{x}{e^x}$ and asking for 1^{st} and 2^{nd} derivatives, Max, Min, inflection points. Overall, 79% of students who passed Math 180 also passed the revised question. They had the most trouble with the algebraic simplification of both derivatives and hence finding the inflection points.		

Action Plan	☐Conduct further assessment related to the issue and outcome ☒Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year:	☐Fall OR ☐Spring Year:	☐Fall OR ☐Spring Year:

ANNUAL SLO REPORT[10]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course # Mathematics 280			
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to analyze and graph polar equations, parametric equations, and conic sections.		
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):

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Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	The passing percentage was below the minimal targeted value. Further assignments will be conducted related to the SLO tested.		
Action Plan	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2011	☐Fall OR ☐Spring Year:	☐Fall OR ☐Spring Year:

ANNUAL SLO REPORT[11]—please fill out the below form on ALL Course-level SLOs you've assessed over the last 2 semesters.

Course # Mathematics 281			
SLO Assessed (please cut and paste the wording of the SLO into the appropriate cell)	A student will be able to use rectangular, polar, parametric, cylindrical and spherical coordinates to solve a variety of integrals and associated application problems.		
Assessment Assignments and/or Instruments: Which were used to assess the SLO? (Department Chair should save any instruments used for assessment (rubrics, surveys, etc.) onto shared department drive or Blackboard site	☒Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):	☐Item analysis of exams, quizzes, problem sets, etc. (items linked to specific outcomes) ☐Assignments based on rubrics (essays/reports, projects, performance analysis) ☐Assignments based on checklists ☐Direct Observation of performances, structured practices or drills, practical exams, small group work, etc. ☐Student Self-Assessments (reflective journals, surveys) ☐Classroom Assessment Techniques (CATS, "clicker" mediated responses, etc.) ☐Capstone projects of final summative assessment (final exams, capstone projects, portfolios, etc.) ☐Student Satisfaction Survey ☐Student/Administrative/ Instructional Service area Data Collection (for SSOs/ASOs/ISOs) ☐Other (please describe):
Assessment Analysis (Please write a narrative on the following: What did you learn from the assessment of the outcomes? (i.e. In	The passing percentage was slightly below the minimal targeted value. A higher passing rate for those who passed the course. Further assignments will be conducted related		

[11] This document was adapted from templates provided by Skyline College.

which areas did students excel? What issues and needs were revealed?) Did the assessment work, and if not, what needs to be revised?	to the topic tested.		
Action Plan	☒Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):	☐Conduct further assessment related to the issue and outcome ☐Conduct according to the schedule with no changes made to the assessment or SLO ☐Use new or revised teaching methods (i.e. more use of group work, new lecture, etc.), such as: ____________________ ☐Develop new methods of evaluating student work, such as: ____________________ ☐Plan purchase of new equipment or supplies needed for modified student activities, such as: ____________________ ☐Make changes in staffing plans (i.e. modified job descriptions, requests for new positions, etc.) ☐Engage in professional development about best practices for this type of class/activity ☐Revise the course sequence or prerequisites ☐Revise the course syllabus or outline (i.e. change in course topics) ☐Revise the SLO ☐Unable to determine what should be done ☐Other (please describe):
Semester when Next Assessment of this SLO Outcome will take place	☒Fall OR ☐Spring Year: 2011	☐Fall OR ☐Spring Year:	☐Fall OR ☐Spring Year:

Appendix 6

Course-to-Program SLO Mapping

COURSE #	SLO		A student will be able to use appropriate theorems, formulas, and algorithms to solve mathematical problems from algebra, trigonometry, calculus and geometry	A student will be able to use appropriate technology to solve problems requiring mathematics	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically and symbolically and be able to transition between these representations	A student will be able to communicate the mathematical process and assess the validity of the solution
MATH 080	1	A student will be able to perform fundamental arithmetic operations, including adding, subtracting, multiplying and dividing whole numbers	x			x
	2	A student will be able to simplify and operate on fractions	x			x
	3	A student will be able to solve simple application problems that may include ratios and proportions	x			x
	4	A student will be able to verify solutions to algebraic equations	x			x
MATH 087	1	A student will be able to identify their own learning style along with specific strategies for studying mathematics textbooks, taking mathematics lecture notes, and organizing course material utilizing their learning style				x
	2	A student will be able to create organized homework models.				x
	3	A student will be able to recall and utilize specific strategies for mathematics test-taking including techniques for reducing math anxiety.				x
	4	A student will be able to identify the support services available on campus.				x
MATH 088	1	A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.	x		x	x
	2	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure.	x		x	x
	3	A student will be able to construct a linear graph	x		x	x
	4	A student will be able to solve a one variable first degree linear equation that model a situation.	x		x	x
	5	A student will be able to translate a written statement into a mathematical statement	x		x	x
					x	
MATH 088L	1	A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.				x
	2	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure.	x		x	x
	3	A student will be able to construct a linear graph	x		x	x

	4	A student will be able to solve a one variable first degree linear equation that model a situation.	x		x	x
	5	A student will be able to translate a written statement into a mathematical statement	x		x	x
MATH 089	1	A student will strengthen core skills with operations involving whole numbers, fractions, decimals, and percentages.				x
	2	A student will be able to perform operations on integers, simplify and evaluate variable expressions, perform operations at the pre-algebra level on polynomials, convert units of measure.	x		x	x
	3	A student will be able to construct a linear graph	x		x	x
	4	A student will be able to solve a one variable first degree linear equation that model a situation.	x		x	x
	5	A student will be able to translate a written statement into a mathematical statement	x		x	x
	6	A student will be able to recall and utilize specific strategies for taking math tests including techniques for reducing math anxiety.				x
MATH 090	1	The student will be able to solve linear, quadratic, rational and radical equations, linear systems and linear inequalities.	x		x	x
	2	The student will be able to simplify and evaluate algebraic expressions.	x		x	x
	3	A student will be able to interpret linear equations numerically, graphically and symbolically and be able to transition between them.	x		x	x
	4	A student will be able to apply appropriate algebraic methods to solve word problems.	x		x	x
MATH 090L	1	The student will be able to solve linear, quadratic rational and radical equations, linear systems and linear inequalities.	x		x	x
	2	The student will be able to simplify and evaluate algebraic expressions.	x			x
	3	A student will be able to interpret linear equations numerically, graphically and symbolically and be able to transition between them.	x		x	x
	4	A student will be able to apply appropriate algebraic methods to solve word problems.	x		x	x
MATH 097	1	A student will use geometric vocabulary and mathematical notation to describe geometric objects and sketch figures with given characteristics.	x		x	x

	2	A student will be able use mathematical logic; using inductive reasoning to formulate reasonable conjectures and using deductive reasoning for justification, formally or informally.	x		x	x
	3	A student will use geometric properties of figures in two or three dimensions to find related quantities.	x		x	x
	4	A student will develop and evaluate conjectures about geometric objects and the relationships between them.			x	x
	5	A student will translate written language into mathematical statements, interpreting information by sketching relevant diagrams and by applying algebraic techniques to solve geometric problems.			x	x
MATH 103	1	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to simplify or solve them.	x		x	x
	2	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations.	x		x	x
	3	A student will be able to apply appropriate algebraic methods to solve applications.	x		x	x
MATH 110	1	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to solve them.	x		x	x
	2	A student will be able to use the appropriate technology to solve problems requiring intermediate algebra.		x	x	x
	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations.	x		x	x
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.	x		x	x
MATH 110L	1	A student will be able to categorize intermediate algebra problems and use appropriate theorems, formulas, and algorithms to solve them.	x		x	x
	2	A student will be able to use the appropriate technology to solve problems requiring intermediate algebra.	x	x		x

	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the intermediate algebra level and have the ability to transition between these representations.	x		x	x
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.	x		x	x
MATH 120	1	A student will be able to employ both inductive and deductive reasoning appropriately.			x	x
	2	A student will be able to construct visual representations of certain problems and then analyze those constructs to attain a solution.			x	x
	3	A student will be able to identify patterns in observations presented in a problem and then predict other outcomes using the patterns they identified.			x	x
	4	A student will be able to employ logic in solving a problem to arrive at a conclusion.			x	x
	5	A student will be able to categorize given problems and then employ the correct procedures to solve the problems.			x	x
MATH 125	1	The student will be able to use various problem solving strategies.	x			x
	2	The student will be able to develop their number sense by demonstrating competence in using different numeration systems.			x	x
	3	A student will be able to analyze and contrast the basic operations of the real number system.			x	x
	4	A student will be able to demonstrate proportional reasoning when working with the rational numbers.				x
MATH 126	1	The student will have knowledge of basic geometry vocabulary.				x
	2	The student will be able to demonstrate the elementary concepts of statistics.				x
	3	The student will be able to demonstrate the elementary concepts of probability.			x	x
	4	The student will be able to think logically, using inductive reasoning to formulate reasonable conjectures and using deductive reasoning for justification, formally or informally.			x	x
	5	The student will be able to write justifications for conjectures and geometric theorems.				x
	6	A student will be able to demonstrate knowledge of geometric concepts in the K-8 curriculum.			x	x

MATH 128	1	The student will be able to identify different strategies that children use to solve mathematics problems.			x	x
	2	The student will be able to analyze children's mathematical thinking by watching videos and conducting interviews.		x		x
	3	A student will be able to communicate children's ways of solving mathematical problems.				x
MATH 150	1	A student will be able to analyze problems in applied mathematics including statistics, engineering, and the physical sciences and devise computer-based solutions for them.		x		x
	2	A student will be able to design algorithms and develop structured and user-oriented computer programs using the fundamental programming concepts and constructs they learn in class.		x		x
MATH 160	1	A student will be able to categorize data set and use appropriate methods to find, summarize, and visually display statistics about the data set.			x	x
	2	The student will also be able to interpret visual display of statistical data			x	x
	3	A student will be able to take sample statistics and use appropriate procedures, methods, and tests to make inferences about the population.	x			x
	4	A student will be able to categorize probability problems and use appropriate theorems and formulas to solve them.	x			x
	5	A student will be able to use the appropriate technology to analyze statistical problems.		x		x
	6	A student will be able to interpret, communicate, and assess the validity of statistical processes and conclusions.			x	x
MATH 160L	1	A student will be able to categorize data set and use appropriate methods to find, summarize, and visually display statistics about the data set.			x	x
	2	The student will also be able to interpret visual display of statistical data			x	x
	3	A student will be able to take sample statistics and use appropriate procedures, methods, and tests to make inferences about the population.	x			x
	4	A student will be able to categorize probability problems and use appropriate theorems and formulas to solve them.	x			x
	5	A student will be able to use the appropriate technology to analyze statistical problems.		x		x
	6	A student will be able to interpret, communicate, and assess the validity of statistical processes and conclusions.				x

Appendix 6

MATH 170	1	A student will be able to categorize trigonometric problems and use appropriate theorems, formulas, and algorithms to solve them.	x			x
	2	A student will be able to use the appropriate technology to solve problems requiring trigonometry.		x		x
	3	A student will be able to formulate, analyze, and differentiate trigonometric functions numerically, graphically, and symbolically and have the ability to transition between these representations.	x		x	x
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.	x			x
MATH 175	1	A student will be able to categorize college algebra problems and use appropriate theorems, formulas, and algorithms to solve them.	x		x	x
	2	A student will be able to use the appropriate technology to solve problems requiring college algebra.		x	x	x
	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the college algebra level and have the ability to transition between these representations.	x		x	x
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.	x			x
MATH 176	1	A student will be able to categorize precalculus problems and use appropriate theorems, formulas, and algorithms to solve them.	x			x
	2	A student will be able to use the appropriate technology to solve problems requiring precalculus.		x		x
	3	A student will be able to formulate, analyze, and differentiate mathematical functions numerically, graphically, and symbolically at the precalculus level and have the ability to transition between these representations.	x		x	x
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.	x			x
MATH 177	1	Differentiate different teaching strategies and methodologies.				x
	2	Differentiate different learning styles.				x

	3	Solve intermediate algebra level word problems and deconstruct the various strategies that can be used to solve these problems.	x			x
MATH 178	1	A student will be able to categorize matrix algebra problems and use appropriate theorems, formulas, and algorithms to solve them.	x			x
	2	A student will be able to define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.	x			x
	3	A student will be able to demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.	x			x
	4	A student will be able to interpret and analyze information to develop strategies for solving problems in business and behavioral science involving related rates and optimization problems.	x			x
	5	A student will be able to communicate the mathematical process and assess the validity of the solution.	x			x
MATH 180	1	A student will be able to define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.	x			x
	2	A student will be able to demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.	x			x
	3	A student will be able to interpret and analyze information to develop strategies for solving problems involving related rates, optimization, work, volumes, arc length, and surface area.	x			x
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.	x			x
MATH 198	1	Students will be able to recognize essential math skills and mathematical content and apply them to a related course.				x
						x
MATH 199	1	A student will be able to complete individual study, research, or projects in education.				x
	2	A student will be able to participate in conference sessions with the instructor of record.				x
	3	A student will be able to develop the skills necessary to work independently (including self-monitoring, time management, and resource acquisition).				x

MATH 245	1	A student will be able to evaluate and simplify basic logic.				x
	2	A student will be able to define and apply the concepts from elementary number theory and elementary set theory.				x
	3	A student will be able to apply direct and indirect methods of proof.				x
	4	A student will be able to solve counting problems.	x			x
MATH 280	1	A student will be able to choose and apply appropriate techniques of integration.				x
	2	A student will be able to determine the convergence or divergence of sequences and series.				x
	3	A student will be able to solve problems involving power series representations of functions.				x
	4	A student will be able to analyze and graph polar equations, parametric equations, and conic sections.			x	x
	5	A student will be able to solve problems using polar and parametric equations that involve tangent lines, arc length, and surface area.			x	x
MATH 281	1	A student will be able to use rectangular, polar, parametric, cylindrical and spherical coordinates to solve a variety of integrals and associated application problems.			x	x
	2	A student will be able to analyze, graph and solve equations related to multi-variable functions.			x	x
	3	A student will be able to evaluate, interpret and apply higher order partial derivatives.				x
	4	A student will be able to analyze and interpret physical examples of vector fields and vector functions.				x
MATH 284	1	A student will be able to characterize and solve a system of equations, and determine types of solutions and the existence of a solution.				x
	2	A student will be able to classify matrices and their properties.				x
	3	A student will be able to demonstrate and analyze the use of matrix algebra with its associated properties.				x
	4	A student will be able to demonstrate and analyze the use of the determinant with its associated properties.				x
	5	A student will be able to demonstrate and analyze the use of vector spaces, linear transformations, eigenvalues and eigenvectors.			x	x

	6	A student will be able to analyze, identify, and use appropriate methods, definitions, and techniques in solving application problems.				x
MATH 285	1	A student will be able to categorize differential equations and use appropriate theorems, formulas, and algorithms to solve them.				x
	2	A student will be able to use the appropriate technology to solve problems requiring differential equations.				x
	3	A student will be able to formulate, analyze, and differentiate mathematical conceptions requiring differential equations and manipulate them numerically, graphically, and symbolically as well as have the ability to transition between these representations.				x
	4	A student will be able to communicate the mathematical process and assess the validity of the solution.				x
MATH 299	1	A student will be able to complete individual study, research, or projects in education.				x
	2	A student will be able to participate in conference sessions with the instructor of record.				x
	3	A student will be able to develop the skills necessary to work independently (including self-monitoring, time management, and resource acquisition).				x

Appendix 7

Results of Student and Faculty Survey

Grossmont College
Spring 2012
Math
N=574
Response Rate 10.9%

Q1. What is your primary reason for taking this class?

	Frequency	Percent
Required for major	206	35.9
General education requirement	184	32.1
Transfer	77	13.4
Prerequisite	60	10.5
Improve basic skills/college success (reading,writing, English, math, computer skills)	34	5.9
General interest	10	1.7
Improve job skills	3	.5
Total	**574**	**100.0**

Q2. How did you find out about this class?

	Frequency	Percent
Class schedule or college catalog	391	68.1
Grossmont College counselor	118	20.6
Instructor	28	4.9
Other student recommendation	19	3.3
Friend or family member	12	2.1
Public media (radio, TV, newspaper, ad)	4	.7
Grossmont College presentation or special event (teacher came to class; attended fair or campus activity)	2	.3
Total	**574**	**100.0**

Q3. How many courses have you taken in this department at Grossmont College? (Including this current course and any repeated courses)

	Frequency	Percent
One	177	30.8
Two	172	30.0
Three	113	19.7
More than three	112	19.5
Total	**574**	**100.0**

Q4. This class was delivered?

	Frequency	Percent
In a traditional classroom setting	541	94.3
As a hybrid (part in classroom/part online)	27	4.7
Online (100%)	6	1.0
Total	**574**	**100.0**

Q5. What modes of communication are made available to you by your instructor? (Face to Face)

	Frequency	Percent
Face to Face	555	96.7
Email	422	73.5
Telephone/Voice Mail	203	35.4

*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 574).

Q6. Which of the following do you check most frequently for course information and/or messages?

	Frequency	Percent
Instructor	388	67.6
Email	128	22.3
Blackboard announcements	58	10.1
Total	**574**	**100.0**

Q7. When I have questions or need to talk about course content or assignments, I usually meet/talk to my instructor:

	Frequency	Percent
Before or after my class meets	353	61.5
During office hours/ appointment	132	23.0
Via email	89	15.5
Total	**574**	**100.0**

Q8. Who else or what else do you primarily turn to for extra help?

	Frequency	Percent
Tutor	151	26.3
Text book	149	26.0
Current classmates	135	23.5
Website(s)	65	11.3
Family member	39	6.8
Friends who the class	35	6.1
Total	**574**	**100.0**

Q9. Which of the following course resources helped you learn the course material?

	Frequency	Percent
Homework/Assignments	448	78.0
Handouts	443	77.2
Textbook	372	64.8
Videos/dvds	266	46.3
Instructor website	186	32.4
Group work in class	128	22.3
Course Blackboard site	99	17.2
Computer Presentations	76	13.2
Quizzes	50	8.7
Lecture	32	5.6
Study groups	30	5.2
PowerPoint slides	24	4.2
None of the above	20	3.5

*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 574).

Q10. Have you used one or more of the following campus resources to assist you with a course(s) in this department?

	Frequency	Percent
Yes	383	66.7
No	191	33.3
Total	**574**	**100.0**

*Note: Campus resources include: Assessment and Testing Center, English Writing Lab, Tech Mall, Library (online resources), On-Campus Library, Math Study, Tutoring Center, DSPS, EOPS, Department Computer Labs, and Blackboard Help Line.

Q11_a. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: Assessment and Testing Center

	Frequency	Percent
Required	129	33.7
Voluntary	76	19.8
Never Used	178	46.5
Total	383	**100.0**
No Response	191	
Total	574	

Q12_a. Please indicate the helpfulness of each campus resource you have used: Assessment and Testing Center

	Frequency	Percent
Very Helpful	77	20.1
Helpful	83	21.7
Neither Helpful nor Unhelpful	40	10.4
Somewhat Unhelpful	8	2.1
Very Unhelpful	7	1.8
Never Used	168	43.9
Total	383	**100.0**
No Response	191	
Total	574	

Q11_b. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: English Writing Lab

	Frequency	Percent
Required	59	15.4
Voluntary	106	27.7
Never Used	218	56.9
Total	**383**	**100.0**
No Response	191	
Total	574	

Q12_b. Please indicate the helpfulness of each campus resource you have used: English Writing Lab

	Frequency	Percent
Very Helpful	92	24.0
Helpful	54	14.1
Neither Helpful nor Unhelpful	18	4.7
Somewhat Unhelpful	9	2.3
Very Unhelpful	4	1.0
Never Used	206	53.8
Total	**383**	**100.0**
No Response	191	
Total	574	

Q11_c. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: Tech Mall

	Frequency	Percent
Required	44	11.5
Voluntary	268	70.0
Never Used	71	18.5
Total	**383**	**100.0**
No Response	191	
Total	574	

Q12_c. Please indicate the helpfulness of each campus resource you have used: Tech Mall

	Frequency	Percent
Very Helpful	156	40.7
Helpful	115	30.0
Neither Helpful nor Unhelpful	36	9.4
Somewhat Unhelpful	6	1.6
Very Unhelpful	7	1.8
Never Used	63	16.4
Total	**383**	**100.0**
No Response	191	
Total	574	

Q11_d. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: Library (online resources)

		Frequency	Percent
	Required	53	13.8
	Voluntary	184	48.0
	Never Used	146	38.1
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q12_d Please indicate the helpfulness of each campus resource you have used: Library (onlines resources)

		Frequency	Percent
	Very Helpful	110	28.7
	Helpful	99	25.8
	Neither Helpful nor Unhelpful	32	8.4
	Somewhat Unhelpful	11	2.9
	Very Unhelpful	3	.8
	Never Used	128	33.4
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q11_e. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: On-Campus Library

		Frequency	Percent
	Required	41	10.7
	Voluntary	242	63.2
	Never Used	100	26.1
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q12_e. Please indicate the helpfulness of each campus resource you have used: On-Campus Library

		Frequency	Percent
	Very Helpful	149	38.9
	Helpful	102	26.6
	Neither Helpful nor Unhelpful	36	9.4
	Somewhat Unhelpful	8	2.1
	Very Unhelpful	4	1.0
	Never Used	84	21.9
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q11_f. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: Math Study

		Frequency	Percent
	Required	49	12.8
	Voluntary	251	65.5
	Never Used	83	21.7
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q12_f. Please indicate the helpfulness of each campus resource you have used: Math Study

		Frequency	Percent
	Very Helpful	160	41.8
	Helpful	97	25.3
	Neither Helpful nor Unhelpful	21	5.5
	Somewhat Unhelpful	15	3.9
	Very Unhelpful	13	3.4
	Never Used	77	20.1
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q11_g. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: Tutoring Center

		Frequency	Percent
	Required	35	9.1
	Voluntary	205	53.5
	Never Used	143	37.3
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q12_g. Please indicate the helpfulness of each campus resource you have used: Tutoring Center

		Frequency	Percent
	Very Helpful	132	34.5
	Helpful	79	20.6
	Neither Helpful nor Unhelpful	20	5.2
	Somewhat Unhelpful	10	2.6
	Very Unhelpful	9	2.3
	Never Used	133	34.7
	Total	**383**	**100.0**
	No Response	191	
Total		574	

Q11_h. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: DSPS

	Frequency	Percent
Required	16	4.2
Voluntary	55	14.4
Never Used	312	81.5
Total	**383**	**100.0**
No Response	191	
Total	574	

Q12_h. Please indicate the helpfulness of each campus resource you have used: DSPS

	Frequency	Percent
Very Helpful	43	11.2
Helpful	19	5.0
Neither Helpful nor Unhelpful	34	8.9
Somewhat Unhelpful	4	1.0
Very Unhelpful	2	.5
Never Used	281	73.4
Total	**383**	**100.0**
No Response	191	
Total	574	

Q11_i. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: EOPS

	Frequency	Percent
Required	22	5.7
Voluntary	62	16.2
Never Used	299	78.1
Total	**383**	**100.0**
No Response	191	
Total	574	

Q12_i. Please indicate the helpfulness of each campus resource you have used: EOPS

	Frequency	Percent
Very Helpful	47	12.3
Helpful	24	6.3
Neither Helpful nor Unhelpful	33	8.6
Somewhat Unhelpful	5	1.3
Very Unhelpful	2	.5
Never Used	272	71.0
Total	**383**	**100.0**
No Response	191	
Total	574	

Q11_j. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: Department Computer Labs

	Frequency	Percent
Required	39	10.2
Voluntary	113	29.5
Never Used	231	60.3
Total	**383**	**100.0**
No Response	191	
Total	574	

Q12_j. Please indicate the helpfulness of each campus resource you have used: Department Computer Labs

	Frequency	Percent
Very Helpful	66	17.2
Helpful	57	14.9
Neither Helpful nor Unhelpful	32	8.4
Somewhat Unhelpful	3	.8
Very Unhelpful	1	.3
Never Used	224	58.5
Total	**383**	**100.0**
No Response	191	
Total	574	

Q11_k. For each of the following campus resources you have used, please indicate if you were required to use or voluntarily used the campus resource: Blackboard Help Line

	Frequency	Percent
Required	44	11.5
Voluntary	78	20.4
Never Used	261	68.1
Total	**383**	**100.0**
No Response	191	
Total	574	

Q12_k. Please indicate the helpfulness of each campus resource you have used: Blackboard Help Line

	Frequency	Percent
Very Helpful	50	13.1
Helpful	52	13.6
Neither Helpful nor Unhelpful	34	8.9
Somewhat Unhelpful	2	.5
Very Unhelpful	2	.5
Never Used	243	63.4
Total	**383**	**100.0**
No Response	191	
Total	574	

Q13. What I am learning/have learned in this class could be useful outside of the classroom for purposes other than achieving my academic goals.

	Frequency	Percent
Yes	439	76.5
No	135	23.5
Total	**574**	**100.0**

Q14. How satisfied are you with the availability of courses in this department?

	Frequency	Percent
Dissatisfied	176	30.7
Neutral	155	27.0
Very Dissatisfied	133	23.2
Satisfied	56	9.8
Very Satisfied	54	9.4
Total	**574**	**100.0**

Q15. Is your major in this department?

	Frequency	Percent
No	471	82.5
Yes	100	17.5
Total	**571**	**100.0**
No Response	3	
Total	574	

Q16. What would be your preferred start time(s) for courses to be offered? WEEKDAYS

	Frequency	Percent
9am-noon	319	55.6
12-3pm	203	35.4
4pm-10pm	173	30.1
7am-8am	117	20.4
No preference	72	12.5

*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 574).

Q17. What would be your preferred start time(s) for course offered on: SATURDAYS

	Frequency	Percent
(Saturdays - No Preference)	265	46.2
(Saturdays - 9am-noon)	191	33.3
(Saturdays - 12-3pm)	125	21.8
(Saturdays - 7am-8am)	84	14.6
(Saturdays 4-10pm)	62	10.8

*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 574).

Q18. What would be your preferred start time(s) for course offered on: SUNDAYS

	Frequency	Percent
(Sundays - No Preference)	301	52.4
(Sundays - 9am-noon)	155	27.0
(Sundays - 12-3pm)	117	20.4
(Sundays - 7am-8am)	70	12.2
(Sundays 4-10pm)	67	11.7

*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 574).

Q19. What would be your preferred start time(s) for courses offered on: (Distance Education)

	Frequency	Percent
Online	295	51.4
No Response	279	48.6
Total	**574**	**100.0**

Q20. Gender

	Frequency	Percent
Male	246	42.9
Female	328	57.1
Total	**574**	**100.0**

Q21. Age

	Frequency	Percent
Under 20	124	21.6
20-24	201	35.0
25-29	100	17.4
30-49	120	20.9
50 or older	29	5.1
Total	**574**	**100.0**

Q22. Ethnicity

	Frequency	Percent
White, Non-Hispanic and not of Middle Eastern descent	250	43.6
Hispanic	145	25.3
Middle Eastern	53	9.2
Asian	46	8.0
Black	34	5.9
Two or more	29	5.1
Filipino	12	2.1
Pacific Islander	4	.7
Native American	1	.2
Total	**574**	**100.0**

Q23. Primary Language:

	Frequency	Percent
English	432	75.3
Spanish	41	7.1
Arabic	38	6.6
Chaldean	14	2.4
Vietnamese	12	2.1
Chinese	8	1.4
Aramaic	5	.9
French	5	.9
Russian	5	.9
Korean	4	.7
Tagalog	4	.7
Farsi	3	.5
Japanese	2	.3
Italian	1	.2
Total	**574**	**100.0**

Q23. Primary Language: Other

	Frequency
Somali	4
Spanish	3
Khmer	2
Portuguese	2
Thai	2
Amharic	1
Arabic	1
Armenian and Arabic	1
Chaldean	1
Creole	1
English	1
French and Kirundi	1
Hebrew	1
Laos	1
Sinhala	1
Tigrina	1
Turkish	1
Turkish and Russian	1
Uzbek	1

Fall 2012

Math Department Student Survey

Instructions:

- **PLEASE DO NOT WRITE YOUR NAME ON THE SCANTRON FORM.**
- Please provide the following information on the scantron form as shown below:

Name__COURSE NUMBER _ (e.g. Math 90)______
Subject__CLASSROOM NUMBER_(e.g. 31-357)_
Date___LEAVE BLANK__Period_LEAVE BLANK

Questions 1-11 are concerned with the math courses you have had at Grossmont College.

1) Attending the class lectures helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

2) Reading my textbook helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

3) Doing my homework helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

4) The instructor's website/Blackboard site helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

5) The instructor's handouts helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

6) A tutor helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

7) Internet resources helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

8) Study groups with other students in class helped me learn the material.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

9) How many math classes have you taken at Grossmont College.
A 1 class **B** 2 classes **C** 3 classes **D** 4 classes **E** more than 4

10) I am considering getting a AS degree in mathematics from Grossmont College
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

11) I am considering becoming a mathematics teacher someday.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

Questions 12 – 22 concern the facilities of the mathematics department.

12) The classroom was of adequate size for the number of students.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

13) I was able to sit where I wanted in the classroom.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

14) It was easy for me to see what the instructor wrote on the board.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

15) My angle of view was adequate when the instructor wrote on the board.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

16) It was easy for me to view the information on the projection screen.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

17) The instructor had to raise and lower the projection screen throughout the class.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

18) The instructor had to dim and brighten the classroom lights throughout the class.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

19) It was easy to get in and out of my classroom desk.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

20) When at my desk I had enough space to put my belongings.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

21) My classroom desk had adequate work space for my needs.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

22) It would be easy for me to evacuate the room in case of an emergency.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

<u>Questions 23 – 28</u> concern the Math Study Center.

23) I used the math study center.
A Often **B** Sometimes **C** Rarely **D** Never

24) I was satisfied with the help I received in the math study center.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

25) The math study center was of adequate size.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

26) The math study center had enough tutors so I did not have to wait too long.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

27) The tutors in the math study center were pleasant to work with.
A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

28) The tutors in the math study center were well qualified.

A Strongly Agree **B** Agree **C** Neutral **D** Disagree **E** Strongly Disagree

Fall 2012

Math Department Student Survey

Questions 1-11 are concerned with the math courses you have had at Grossmont College.

1) Attending the class lectures helped me learn the material.

Q1	Frequency	Percent
Strongly Agree	483	66.1
Agree	189	25.9
Neutral	45	6.2
Disagree	9	1.2
Strongly Disagree	5	0.7
Total	731	100.0

2) Reading my textbook helped me learn the material.

Q2	Frequency	Percent
Strongly Agree	152	20.8
Agree	256	35.1
Neutral	223	30.5
Disagree	74	10.1
Strongly Disagree	25	3.4
Total	730	100.0

3) Doing my homework helped me learn the material.

Q3	Frequency	Percent
Strongly Agree	448	61.4
Agree	215	29.5
Neutral	52	7.1
Disagree	10	1.4
Strongly Disagree	5	0.7
Total	730	100.0

4) The instructor's website/Blackboard site helped me learn the material.

Q4	Frequency	Percent
Strongly Agree	134	18.8
Agree	134	18.8
Neutral	300	42.0
Disagree	93	13.0
Strongly Disagree	53	7.4
Total	714	100.0

5) The instructor's handouts helped me learn the material.

Q5	Frequency	Percent
Strongly Agree	302	41.4
Agree	273	37.4
Neutral	120	16.5

Disagree	17	2.3
Strongly Disagree	17	2.3
Total	729	100.0

6) A tutor helped me learn the material.

Q6	Frequency	Percent
Strongly Agree	122	17.2
Agree	148	20.8
Neutral	267	37.6
Disagree	95	13.4
Strongly Disagree	78	11.0
Total	710	100.0

7) Internet resources helped me learn the material.

Q7	Frequency	Percent
Strongly Agree	144	20.3
Agree	205	28.9
Neutral	221	31.2
Disagree	88	12.4
Strongly Disagree	51	7.2
Total	709	100.0

8) Study groups with other students in class helped me learn the material.

Q8	Frequency	Percent
Strongly Agree	105	14.8
Agree	178	25.0
Neutral	278	39.1
Disagree	92	12.9
Strongly Disagree	58	8.2
Total	711	100.0

9) How many math classes have you taken at Grossmont College.

Q9	Frequency	Percent
1 class	255	35.0
2 classes	182	25.0
3 classes	148	20.3
4 classes	63	8.7
more than 4	80	11.0
Total	728	100.0

10) I am considering getting a AS degree in mathematics from Grossmont College

Q10	Frequency	Percent
Strongly Agree	76	10.6
Agree	73	10.2
Neutral	130	18.1
Disagree	205	28.6
Strongly Disagree	233	32.5
Total	717	100.0

11) I am considering becoming a mathematics teacher someday.

Q11	Frequency	Percent
Strongly Agree	32	4.4
Agree	36	4.9
Neutral	108	14.8
Disagree	207	28.4
Strongly Disagree	345	47.4
Total	728	100.0

Questions 12 – 22 concern the facilities of the mathematics department.

12) The classroom was of adequate size for the number of students.

Q12	Frequency	Percent
Strongly Agree	147	20.1
Agree	290	39.7
Neutral	106	14.5
Disagree	121	16.6
Strongly Disagree	67	9.2
Total	731	100.0

13) I was able to sit where I wanted in the classroom.

Q13	Frequency	Percent
Strongly Agree	283	38.8
Agree	277	37.9
Neutral	83	11.4
Disagree	56	7.7
Strongly Disagree	31	4.2
Total	730	100.0

14) It was easy for me to see what the instructor wrote on the board.

Q14	Frequency	Percent
Strongly Agree	269	37.0
Agree	245	33.7
Neutral	84	11.5
Disagree	102	14.0
Strongly Disagree	28	3.8
Total	728	100.0

15) My angle of view was adequate when the instructor wrote on the board.

Q15	Frequency	Percent
Strongly Agree	238	32.8
Agree	263	36.2
Neutral	119	16.4
Disagree	81	11.2

Strongly Disagree	25	3.4
Total	726	100.0

16) It was easy for me to view the information on the projection screen.

Q16	Frequency	Percent
Strongly Agree	301	41.3
Agree	262	35.9
Neutral	91	12.5
Disagree	54	7.4
Strongly Disagree	21	2.9
Total	729	100.0

17) The instructor had to raise and lower the projection screen throughout the class.

Q17	Frequency	Percent
Strongly Agree	100	13.8
Agree	107	14.7
Neutral	138	19.0
Disagree	249	34.3
Strongly Disagree	133	18.3
Total	727	100.0

18) The instructor had to dim and brighten the classroom lights throughout the class.

Q18	Frequency	Percent
Strongly Agree	113	15.5
Agree	187	25.6
Neutral	122	16.7
Disagree	207	28.4
Strongly Disagree	101	13.8
Total	730	100.0

19) It was easy to get in and out of my classroom desk.

Q19	Frequency	Percent
Strongly Agree	154	21.2
Agree	262	36.1
Neutral	146	20.1
Disagree	111	15.3
Strongly Disagree	52	7.2
Total	725	100.0

20) When at my desk I had enough space to put my belongings.

Q20	Frequency	Percent
Strongly Agree	139	19.1
Agree	252	34.6
Neutral	145	19.9
Disagree	124	17.0
Strongly Disagree	68	9.3

Total	728	100.0

21) My classroom desk had adequate work space for my needs.

Q21	Frequency	Percent
Strongly Agree	122	16.7
Agree	239	32.8
Neutral	162	22.2
Disagree	144	19.8
Strongly Disagree	62	8.5
Total	729	100.0

22) It would be easy for me to evacuate the room in case of an emergency.

Q22	Frequency	Percent
Strongly Agree	100	13.7
Agree	201	27.5
Neutral	176	24.0
Disagree	145	19.8
Strongly Disagree	110	15.0
Total	732	100.0

<u>Questions 23 – 28</u> concern the Math Study Center.

23) I used the math study center.

Q23	Frequency	Percent
Often	126	17.4
Sometimes	154	21.3
Rarely	146	20.2
Never	297	41.1
Total	723	100.0

24) I was satisfied with the help I received in the math study center.

Q24	Frequency	Percent
Strongly Agree	106	15.5
Agree	176	25.8
Neutral	318	46.6
Disagree	56	8.2
Strongly Disagree	26	3.8
Total	682	100.0

25) The math study center was of adequate size.

Q25	Frequency	Percent
Strongly Agree	59	8.7
Agree	168	24.6
Neutral	340	49.9
Disagree	94	13.8

Strongly Disagree	21	3.1
Total	682	100.0

26) The math study center had enough tutors so I did not have to wait too long.

Q26	Frequency	Percent
Strongly Agree	45	6.7
Agree	123	18.2
Neutral	370	54.9
Disagree	105	15.6
Strongly Disagree	31	4.6
Total	674	100.0

27) The tutors in the math study center were pleasant to work with.

Q27	Frequency	Percent
Strongly Agree	122	18.0
Agree	200	29.5
Neutral	316	46.7
Disagree	28	4.1
Strongly Disagree	11	1.6
Total	677	100.0

28) The tutors in the math study center were well qualified.

Q28	Frequency	Percent
Strongly Agree	109	16.5
Agree	192	29.0
Neutral	319	48.3
Disagree	30	4.5
Strongly Disagree	11	1.7
Total	661	100.0

Program Review Faculty Survey: Math
Fall 2012

My employment status with the college is

	Frequency	Percent
Adjunct faculty	21	67.7
Full-time faculty	10	32.3
Total	31	100.0

I received an orientation to the college, department and the classes including... a. Current course outlines were made readily available to me

	Frequency	Percent
Agree	8	25.8
Disagree	2	6.5
Neutral	3	9.7
Strongly	18	58.1
Total	31	100.0

I received an orientation to the college, department and the classes including.. . b. I had the opportunity to discuss the implementation of the course outline

	Frequency	Percent
Agree	10	32.3
Disagree	2	6.5
Neutral	5	16.1
Strongly	14	45.2
Total	31	100.0

I have the opportunities for ongoing staff development including: a. Access to information from regular department meetings

	Frequency	Percent
Agree	5	16.1
Disagree	1	3.2
Neutral	9	29.0
Strongly	16	51.6
Total	31	100.0

I have the opportunities for ongoing staff development including: b. Opportunity to collaborate with colleagues on SLOs, curriculum changes and pedagogy related to the courses I teach

	Frequency	Percent
Agree	10	32.3
Disagree	1	3.2
Neutral	3	9.7
Strongly	17	54.8
Total	31	100.0

I have the opportunities for ongoing staff development including: c. Opportunity for professional growth

	Frequency	Percent
Agree	9	29.0
Disagree	1	3.2
Neutral	5	16.1
Strongly	16	51.6
Total	31	100.0

The department resources are available and sufficient for my teaching needs

	Frequency	Percent
Agree	11	35.5
Disagree	2	6.5
Neutral	1	3.2
Strongly	17	54.8
Total	31	100.0

I have access to the training I need to use the available department equipment/technology

	Frequency	Percent
Agree	10	32.3
Disagree	2	6.5
Neutral	2	6.5
Strongly	17	54.8
Total	31	100.0

The department has clear and reasonable communication when it comes to adopting new policies, procedures and/or protocols

	Frequency	Percent
Agree	14	45.2
Disagree	1	3.2
Neutral	3	9.7
Strongly	13	41.9
Total	31	100.0

The procedures for deciding teaching schedules are fair and reasonable

	Frequency	Percent
Agree	11	35.5
Disagree	2	6.5
Neutral	4	12.9
Strongly	14	45.2
Total	31	100.0

I feel I have a voice in the departmental decision making process

	Frequency	Percent
Agree	9	29.0
Disagree	3	9.7
Neutral	8	25.8
Strongly	11	35.5
Total	**31**	**100.0**

I have the opportunity to be actively involved in department SLO assessment processes and discussions

	Frequency	Percent
Agree	6	19.4
Disagree	2	6.5
Neutral	3	9.7
Strongly	20	64.5
Total	**31**	**100.0**

Appendix 8

Headcounts for Degrees and Certificates Awarded

Headcounts for Mathematics Associate Degrees Awarded

	Spring	Summer	Fall	Total
2005	4	3	2	9
2006	4	2	2	8
2007	10	2	5	17
2008	6	1	2	9
2009	11	3	1	15
2010	7	8	7	22
2011	13	4	9	26

Appendix 10

Sabbaticals, Conference, Workshop, and Staff Development Activities

Sabbaticals, Conference, Workshop and Staff Development Activities

Name: Nemie Capacia

Activity	Relevance
Captivate Mini-Course Workshop (BSI Funded), San Diego, CA (June 2009)	Attendee
CMC^3 South Spring Conference in Anaheim, CA; Title of Presentation: Visualization of Mathematics through Animation (March 2007)	Co-presenter
33rd AMATYC Annual Conference in Minneapolis, Minnesota; Title of Presentation: Visualization of Mathematical Objects through Animations (November 2007)	Co-presenter
19th Annual International Conference on Technology in Collegiate Mathematics (ICTCM), Orlando, FL. (Spring 2007)	Attendee
20th Annual International Conference on Technology in Collegiate Mathematics (ICTCM), San Antonio, Texas. (Spring 2008)	Attendee
21st Annual International Conference on Technology in Collegiate Mathematics (ICTCM), New Orleans, LA. (Spring 2009)	Attendee
Innovation Conference, San Diego, CA (Spring 2010)	Attendee
2010 Strengthening Student Success Conference, Los Angeles, CA ; Title of Presentations: What We've Learned After Four Years of Assessing SLOs and Developmental Mathematics: Everything and the Kitchen Sink (Fall 2010)	Co-presenter
23rd Annual International Conference on Technology in Collegiate Mathematics (ICTCM), Denver, CO. (Spring 2011)	Attendee
Course Redesign Conference, Napa Valley, CA; Title of Presentation: Developmental Math Course Redesign at Grossmont College: (Fall 2011)	presenter
Cengage Learning TeamUP Faculty Programs Mathematics Conference, Phoenix, AZ (Spring 2012)	attendee
NoCal Developmental Skills Forum, Napa Valley, CA; Title of Presentation: Getting the most from MyMathLab – Self Paced (Spring 2012)	presenter

Name: Irene Palacios

Activity	Relevance
ASGC Grant Recipient for Animations project (with Cary Lee and Nemie Capacia) - Fall 2006	Developer
Adobe Captivate Mini-Course (BSI Funded) - June 2009	Participant
MEET Retreat (Modeling Effective Educational Technology), Funded for Presenting Best Practices in Online Teaching. Sponsored by The CCCConfer Project - January 2010 & June 2011	Presenter
OTC (Online Teaching Conference); presented with Blaine Morrow; Best Practices in Online Teaching - June 2010	Presenter
NCTM (National Council for Teachers in Mathematics); April 2010	Attendee

"Best Practices for Online Teaching" (GCCCD) - Spring 2012	Panalest
Panel on Electronic Education in U.S. ; Dutch Delegation Consortium Voor Innovatie – sponsored by GCCCD - October 2011	Participant
ICTCM (International Conference on Technology in Collegiate Mathematics) Attendee - March 2012	Attendee
Technology Showcase (GCCCD) Nov 2011, March 2012	Presenter
CCCConfer Workshops (GCCCD) Fall 2010, Spring 2011	Presenter
Innovations Conference - Feb/March 2011	Attendee & Volunteer

Name: Jeff Waller

Activity	Relevance
Strengthening Student Success Conference hosted by the RP-Group. *What We've Learned After Four Years of Assessing SLOs*, and *Developmental Mathematics: Everything and the Kitchen Sink.*	Presenter
CCCAssess in Spring 11, a project directed by the Board of Governors "to begin the process of evaluating the implementation of a systemwide uniform, common assessment with multiple measures of all community college students."	Participant

Name: Susan Working

Activity	Relevance
Pearson Conference on "Course ReDesign" at the Hotel Del in Coronado. Dealt with the modularization of developmental math. September 2010.	Attendee

Name: Cory Manchester

Activity	Relevance
Wiley Faculty Network conference, New Orleans, LA, Spring 2010	Attendee
ICTCM, Chicago, IL, Spring 2010	Attendee
3CSN, Escondido, CA, Summer 2010	Attendee
NADE, Washington DC, Spring 2011	Attendee
Kingsborough Community College Institute, Brooklyn, NY, Summer 2011	Attendee
California Learning Communities Consortium, San Diego, CA, May 2012	Attendee
California Learning Communities Consortium, San Diego, CA, 2012 (Development of Contextualized Learning Communities with Emphasis on	Presenter

Incorporating Career Pathway Curriculum)	
Faculty Summer Institute, El Cajon, CA (Development of Contextualized Learning Communities with Emphasis on Incorporating Career Pathway Curriculum)	Presenter
Grossmont College FLEX Week, Using Statcrunch in the Classroom, Fall 2008	Presenter

Name: Cary Lee

Activity	Relevance
"Animating mathematical objects with PowerPoint", CMC^3 south conference in Anaheim, April 2007.	presenter
"Animating mathematical objects with PowerPoint", AMATYC conference in Minneapolis, November 2007.	presenter

Name: Shawn Hicks

Activity	Relevance
Joint published the article, The Catwalk Task: Reflections and Synthesis: Part 2, in the Journal of Mathematical Behavior on April 21st 2009.	Writer

Name: Beth Smith

Activity	Relevance
Tenure review workshops (Flex week)	presenter
Diversity workshops (Flex week)	presenter
Joint Senate (Flex week), usually state senate updates	presenter

Appendix 11

Grossmont WSCH Analysis Report

Appendix 11: Mathematics WSCH Analysis Report

FTEF – Full Time Equivalent Faculty

WSCH – Weekly Student Contact Hours

% of Max – Earned WSCH divided by Max WSCH times 100

Mathematics WSCH Analysis						
	Total FTEF	Max WSCH	Max WSCH/FTEF	Earned WSCH	Earned WSCH/FTEF	% of Max
Fall 2005	40.19	27231	677.49	21890	544.61	80.39
Spring 2006	41.91	28311.53	675.56	19368.33	462.16	68.41
Fall 2006	41.03	27946	681.16	21867.5	533	78.25
Spring 2007	42.56	29099.75	683.72	19946.22	468.65	68.54
Fall 2007	41.63	28346	680.95	22494	540.37	79.36
Spring 2008	42.98	32331.94	752.29	21259.75	494.67	65.75
Fall 2008	40.83	27564	675.16	23372.5	572.49	84.79
Spring 2009	41.26	27897	676.13	21768	527.58	78.03
Fall 2009	37.63	25358	673.96	24673	655.76	97.30
Spring 2010	36.56	24389	667.1	23189.5	634.29	95.08
Fall 2010	36.16	24437.5	675.83	24750	684.48	101.28
Spring 2011	35.38	23784	672.3	22774	643.75	95.75
Fall 2011	35.04	23235	663.04	24730	705.70	106.43

FTEF – Full Time Equivalent Faculty

WSCH – Weekly Student Contact Hours

% of Max – Earned WSCH divided by Max WSCH times 100

% OF MAX by COURSE													
Math Courses	**Fa.05**	**Sp.06**	**Fa.06**	**Sp.07**	**Fa.07**	**Sp.08**	**Fa.08**	**Sp.09**	**Fa.09**	**Sp.10**	**Fa.10**	**Sp.11**	**Fa.11**
080	48.88	32.56	48.64	33.33	58.1	46.66	53.41	82.22	97.73	87.78	94.44	100	NA
087	42.59	48.14	NA	29.62	40	30	NA	NA	NA	NA	NA	NA	NA
088	61.94	37.5	69.64	66.88	70.71	77.4	82.85	73.57	103.8	106.6	97	106.1	126.5
089	37.5	38.57	51.42	45.71	51.42	54.28	71.43	NA	NA	NA	NA	NA	NA
090	86.63	72.78	91.46	74.94	86.62	78.84	93.79	77.67	101.5	100.2	100.4	100.7	115
097	44.44	33.33	51.11	30	41.11	40	36.67	54.12	51.11	80	95.56	86.67	91.11
103	92.06	73.71	82.92	68.88	87.06	71.69	90.94	78.87	107	101.6	112.3	101.5	104
110	94.37	76.46	85.43	69.05	89.59	78.53	97.71	75.14	102.9	95.35	104.8	99.3	106.4
120	59.05	61.11	67.1	56.34	62.78	64.92	76.77	73.57	91.76	90	103.8	94.32	89.75
125	54.81	40	40	60	53.33	73.75	62.22	70	54.44	67.78	51.11	88.89	71.11
126	35.55	43.33	27.77	34.44	24.44	25.92	27.78	46.67	42.22	48.89	46.67	40	NA
128	35.55	75.55	46.66	33.33	37.77	32.22	52.22	55.56	44.44	45.56	44.44	NA	NA
150	43.75	37.5	34.37	43.75	59.37	31.25	31.25	NA	50	NA	NA	NA	NA
160	86.35	73.41	81.77	77.77	88.31	73.15	85.2	88.49	100.3	98.26	86.1	101.8	88.6
170	62.77	57.77	65	87.4	67.25	85.92	56.48	78.57	104.8	79.37	98.52	99.26	111.1
175	87.74	68.7	80.56	65.42	66.76	58.85	77.18	64	92.83	87.17	109.4	95.93	100.4
176	96.11	66.66	88.88	68.88	96.11	78.88	107.8	95.56	103.9	103.3	109.4	107.2	113.9
178	82.22	72.69	70	78.73	77.5	60.24	74.92	80.28	80	87.78	96.3	72.78	100
180	80	70.47	83.17	70.79	83.17	78.73	91.11	92.26	103.8	93.85	106.4	75.24	91.43
245	40	73.33	43.33	83.33	56.66	40	63.33	53.33	NA	103.3	116.7	73.33	96.67
280	83	74.44	59.11	68.44	63.11	72.88	76.62	73.18	95.52	95.45	92.75	95	107.2
281	75.55	71.11	66.66	85.55	73.33	64.44	72.22	103.3	110	102.2	107.8	110	111.1
284	53.33	106.7	82.22	110	66.66	103.3	93.33	140	83.33	160	106.7	153.3	96.67
285	86.66	60	82.22	88.57	91.11	82.85	60	80	75.56	88.89	111.1	91.11	107.7
177	NA	NA	NA	NA	NA	NA	NA	NA	28.89	44.44	20	15.56	NA

Appendix 12

Department Equivalencies

Appendix 12 – Mathematics Department Equivalencies

<u>Requirement for Equivalency to the Minimum Qualifications for Mathematics:</u>

<u>Option A:</u>

- Bachelor's degree in math or applied math
  And
- Master's degree (unspecified)
  And
- 18 semester units in graduate-level **mathematics** classes (statistics included)

<u>Option B:</u>

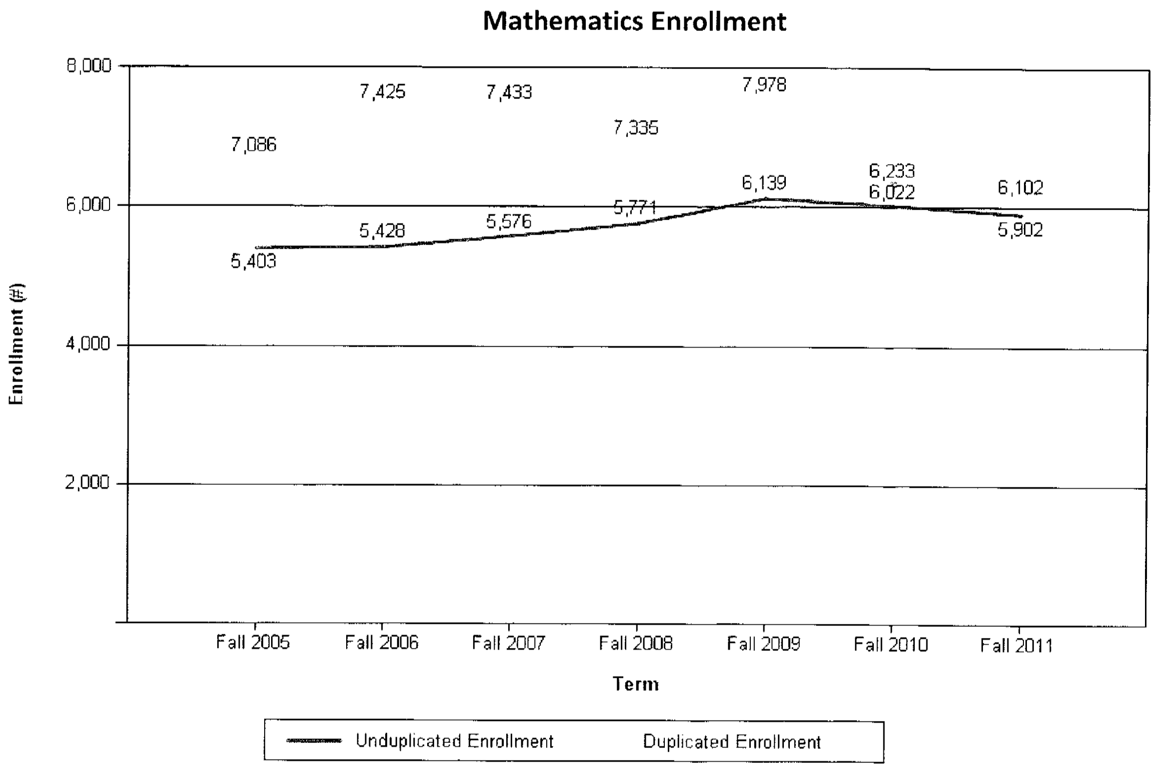
- Bachelor's degree (not in math or applied math)
  And
- Master's degree (in a natural or physical science, engineering or statistics)
  And
- 18 semester units in graduate-level **mathematics** classes (12 of 18 are non-statistics)

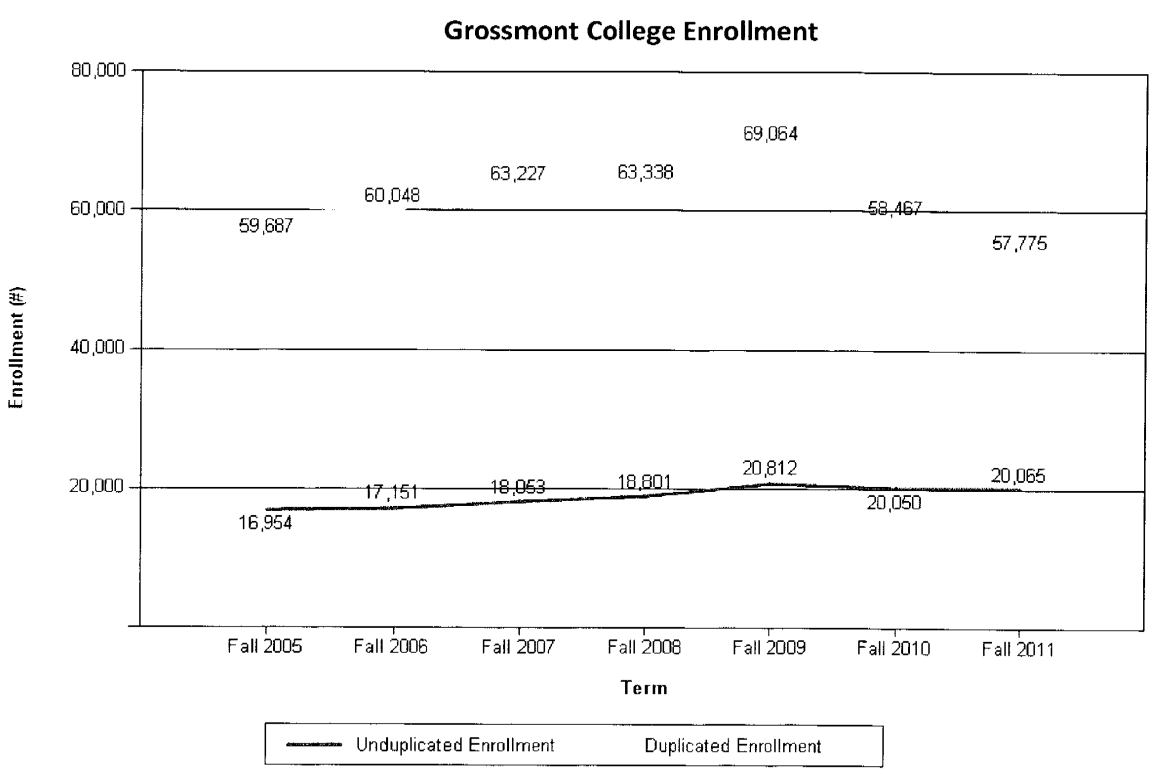
Appendix 13

Statistical Data Outcomes Profile

Appendix 13 – Statistical Data Outcomes Profile

Total Enrollment





Enrollment by Gender (Duplicated Student Count)

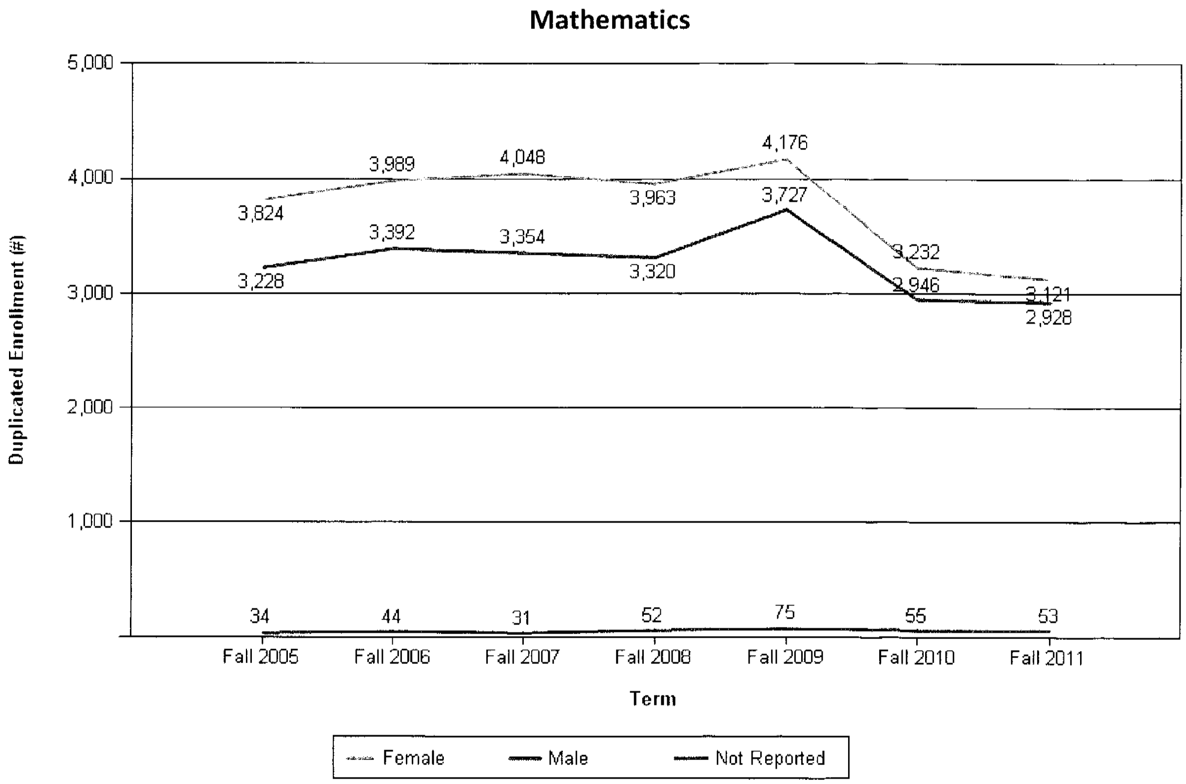
Mathematics

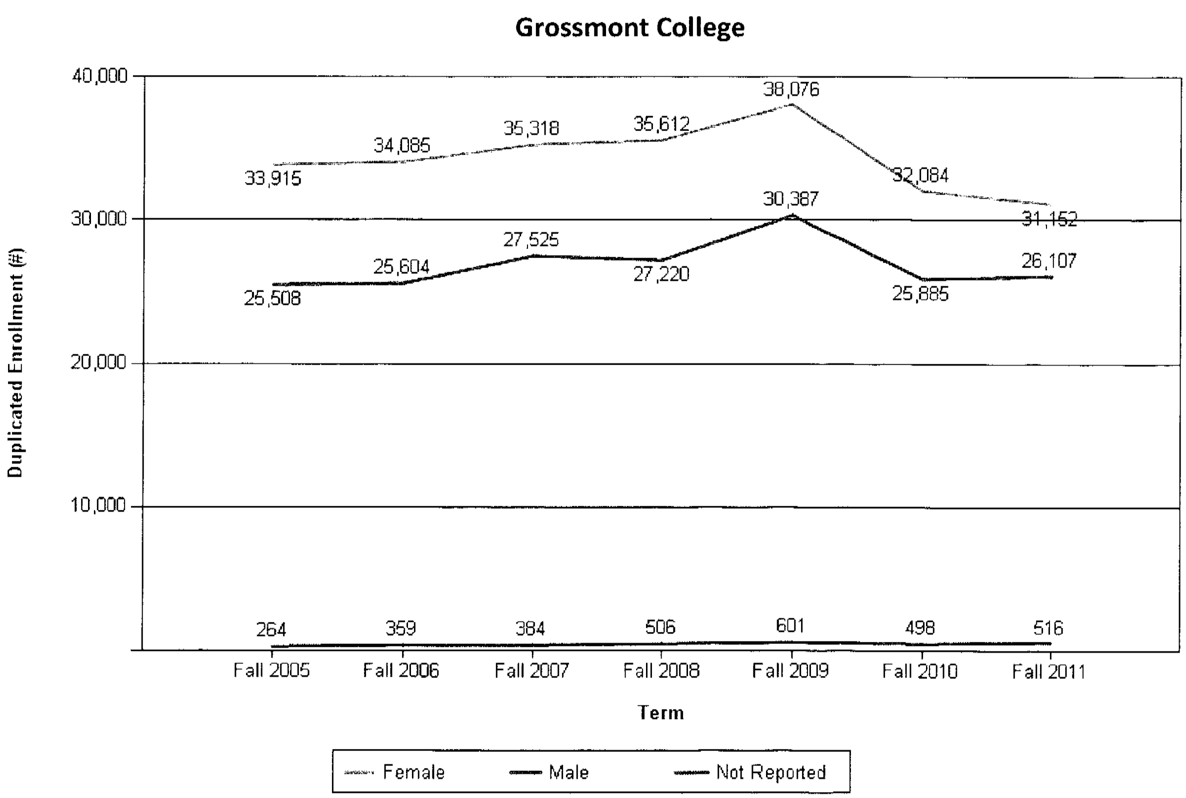
Gender	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Female	3,824	54.0 %	3,989	53.7 %	4,048	54.5 %	3,963	54.0 %	4,176	52.3 %	3,232	51.9 %	3,121	51.1 %
Male	3,228	45.6 %	3,392	45.7 %	3,354	45.1 %	3,320	45.3 %	3,727	46.7 %	2,946	47.3 %	2,928	48.0 %
Not Reported	34	0.5 %	44	0.6 %	31	0.4 %	52	0.7 %	75	0.9 %	55	0.9 %	53	0.9 %
Total	7,086	100.0 %	7,425	100.0 %	7,433	100.0 %	7,335	100.0 %	7,978	100.0 %	6,233	100.0 %	6,102	100.0 %

Grossmont College

Gender	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Female	33,915	56.8 %	34,085	56.8 %	35,318	55.9 %	35,612	56.2 %	38,076	55.1 %	32,084	54.9 %	31,152	53.9 %
Male	25,508	42.7 %	25,604	42.6 %	27,525	43.5 %	27,220	43.0 %	30,387	44.0 %	25,885	44.3 %	26,107	45.2 %
Not Reported	264	0.4 %	359	0.6 %	384	0.6 %	506	0.8 %	601	0.9 %	498	0.9 %	516	0.9 %
Total	59,687	100.0 %	60,048	100.0 %	63,227	100.0 %	63,338	100.0 %	69,064	100.0 %	58,467	100.0 %	57,775	100.0 %

Enrollment by Gender (Duplicated Student Count)





Enrollment by Gender (Unduplicated Student Count)

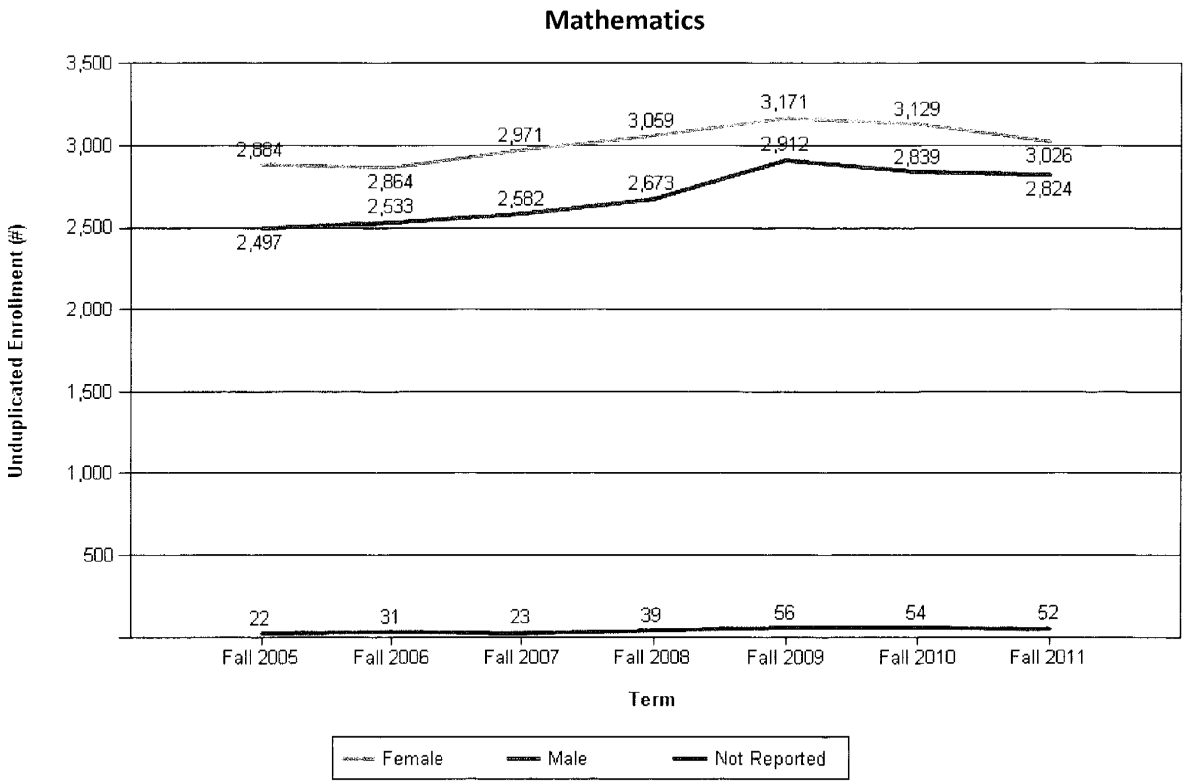
Mathematics

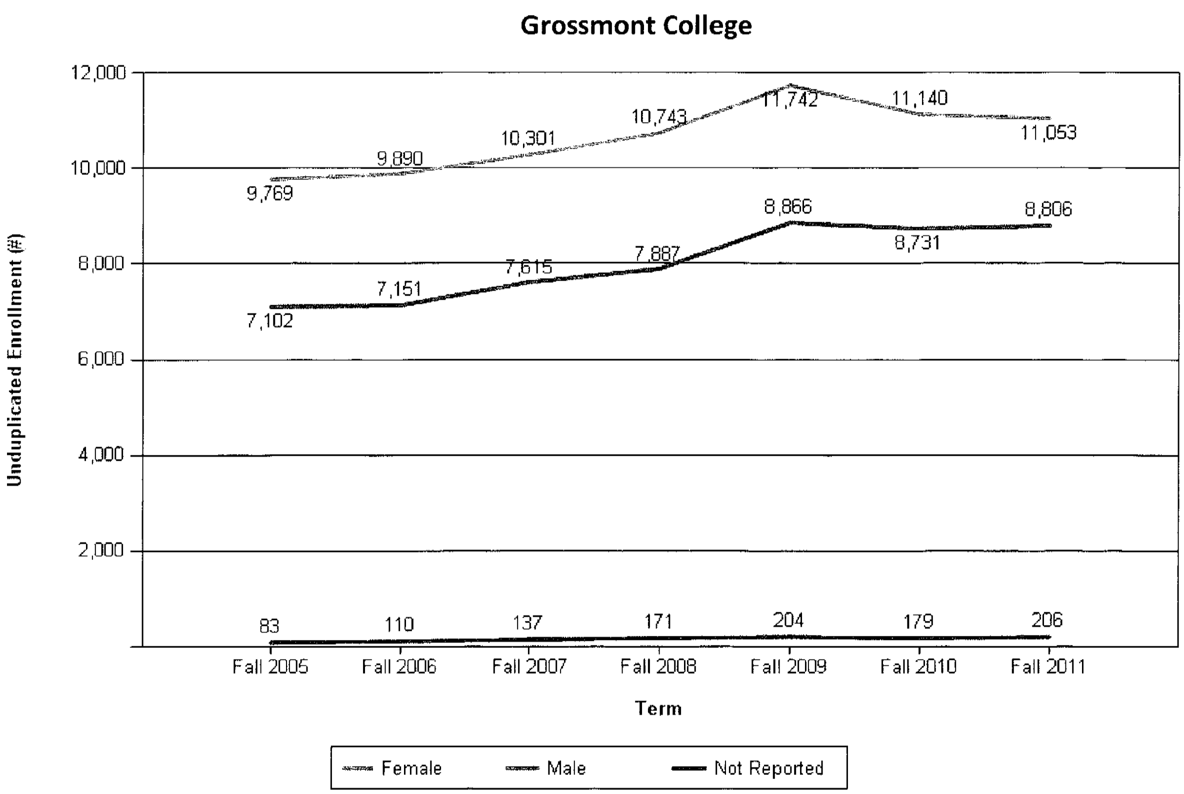
Gender	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Female	2,884	53.4 %	2,864	52.8 %	2,971	53.3 %	3,059	53.0 %	3,171	51.7 %	3,129	52.0 %	3,026	51.3 %
Male	2,497	46.2 %	2,533	46.7 %	2,582	46.3 %	2,673	46.3 %	2,912	47.4 %	2,839	47.1 %	2,824	47.8 %
Not Reported	22	0.4 %	31	0.6 %	23	0.4 %	39	0.7 %	56	0.9 %	54	0.9 %	52	0.9 %
Total	5,403	100.0 %	5,428	100.0 %	5,576	100.0 %	5,771	100.0 %	6,139	100.0 %	6,022	100.0 %	5,902	100.0 %

Grossmont College

Gender	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Female	9,769	57.6 %	9,890	57.7 %	10,301	57.1 %	10,743	57.1 %	11,742	56.4 %	11,140	55.6 %	11,053	55.1 %
Male	7,102	41.9 %	7,151	41.7 %	7,615	42.2 %	7,887	41.9 %	8,866	42.6 %	8,731	43.5 %	8,806	43.9 %
Not Reported	83	0.5 %	110	0.6 %	137	0.8 %	171	0.9 %	204	1.0 %	179	0.9 %	206	1.0 %
Total	16,954	100.0 %	17,151	100.0 %	18,053	100.0 %	18,801	100.0 %	20,812	100.0 %	20,050	100.0 %	20,065	100.0 %

Enrollment by Gender (Unduplicated Student Count)





Enrollment by Age (Duplicated Student Counts)

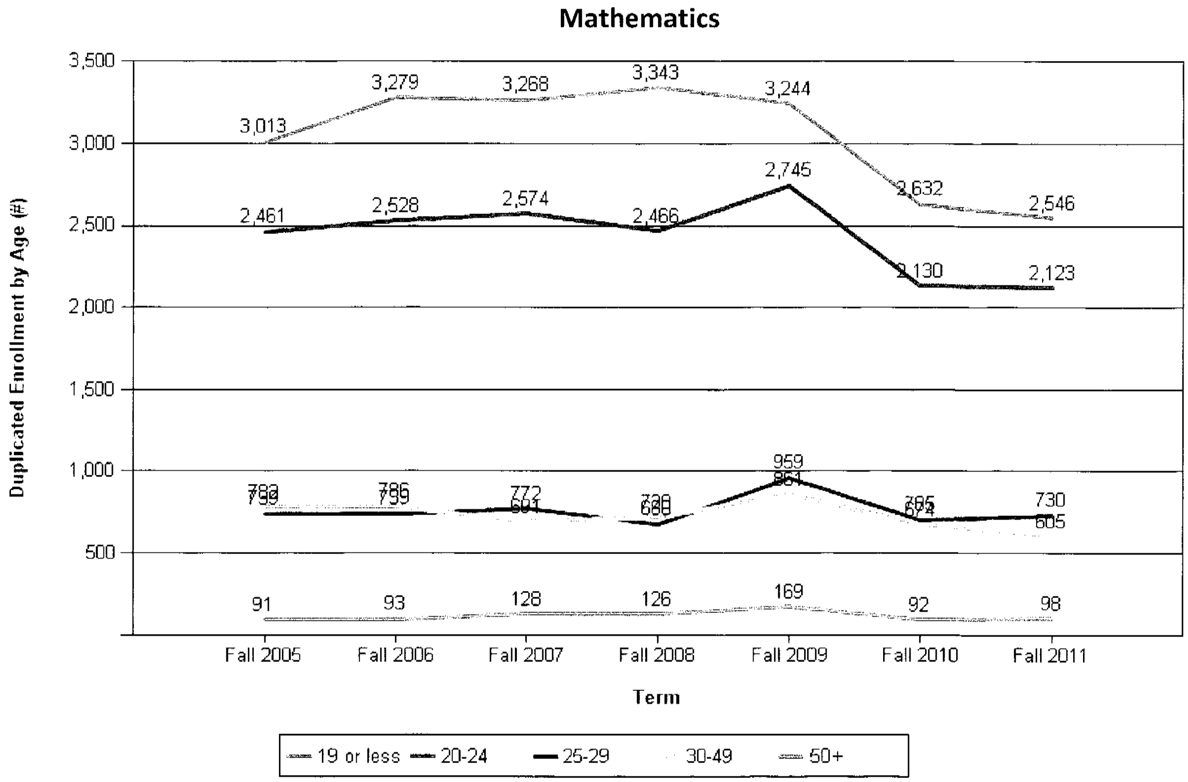
Mathematics

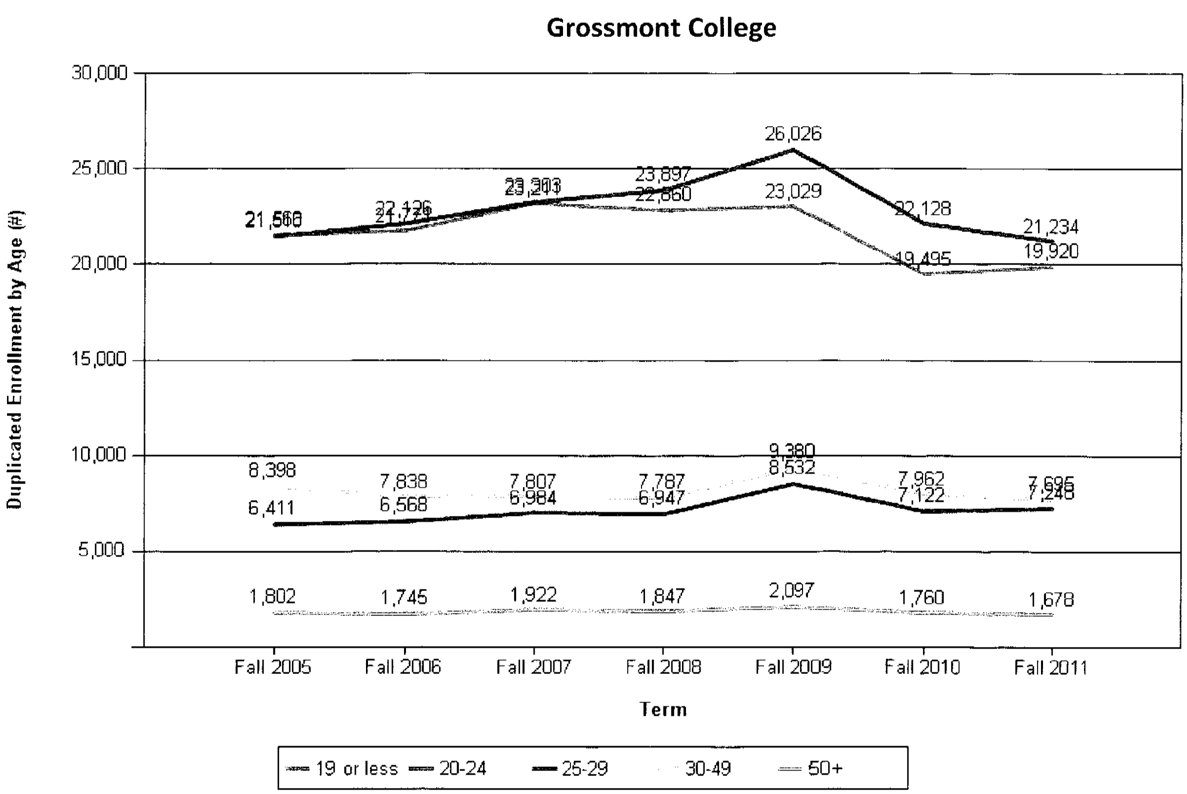
Age	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
19 or less	3,013	42.5 %	3,279	44.2 %	3,268	44.0 %	3,343	45.6 %	3,244	40.7 %	2,632	42.2 %	2,546	41.7 %
20-24	2,461	34.7 %	2,528	34.0 %	2,574	34.6 %	2,466	33.6 %	2,745	34.4 %	2,130	34.2 %	2,123	34.8 %
25-29	739	10.4 %	739	10.0 %	772	10.4 %	680	9.3 %	959	12.0 %	705	11.3 %	730	12.0 %
30-49	782	11.0 %	786	10.6 %	691	9.3 %	720	9.8 %	861	10.8 %	674	10.8 %	605	9.9 %
50+	91	1.3 %	93	1.3 %	128	1.7 %	126	1.7 %	169	2.1 %	92	1.5 %	98	1.6 %
Total	7,086	100.0 %	7,425	100.0 %	7,433	100.0 %	7,335	100.0 %	7,978	100.0 %	6,233	100.0 %	6,102	100.0 %

Grossmont College

Age	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
19 or less	21,566	36.1 %	21,771	36.3 %	23,211	36.7 %	22,860	36.1 %	23,029	33.3 %	19,495	33.3 %	19,920	34.5 %
20-24	21,510	36.0 %	22,126	36.8 %	23,303	36.9 %	23,897	37.7 %	26,026	37.7 %	22,128	37.8 %	21,234	36.8 %
25-29	6,411	10.7 %	6,568	10.9 %	6,984	11.0 %	6,947	11.0 %	8,532	12.4 %	7,122	12.2 %	7,248	12.5 %
30-49	8,398	14.1 %	7,838	13.1 %	7,807	12.3 %	7,787	12.3 %	9,380	13.6 %	7,962	13.6 %	7,695	13.3 %
50+	1,802	3.0 %	1,745	2.9 %	1,922	3.0 %	1,847	2.9 %	2,097	3.0 %	1,760	3.0 %	1,678	2.9 %
Total	59,687	100.0 %	60,048	100.0 %	63,227	100.0 %	63,338	100.0 %	69,064	100.0 %	58,467	100.0 %	57,775	100.0 %

Enrollment by Age (Duplicated Student Counts)





Enrollment by Age (Unduplicated Student Count)

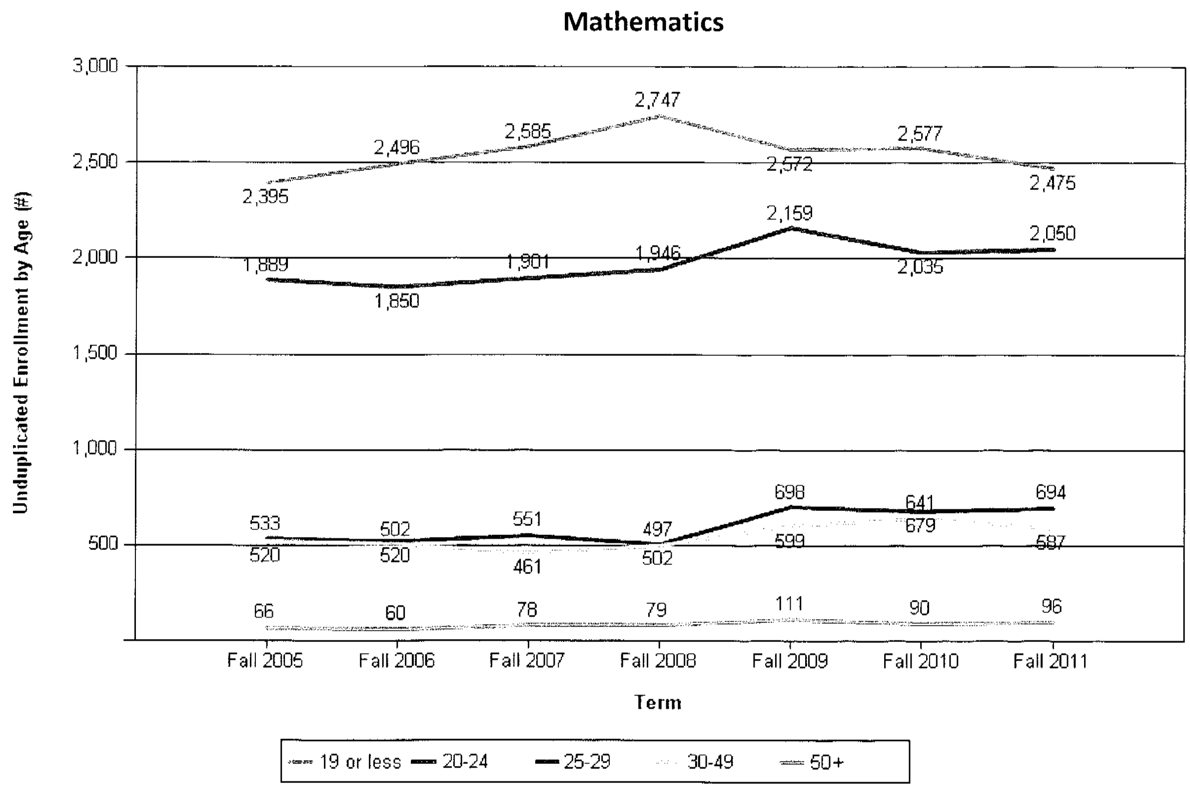
Mathematics

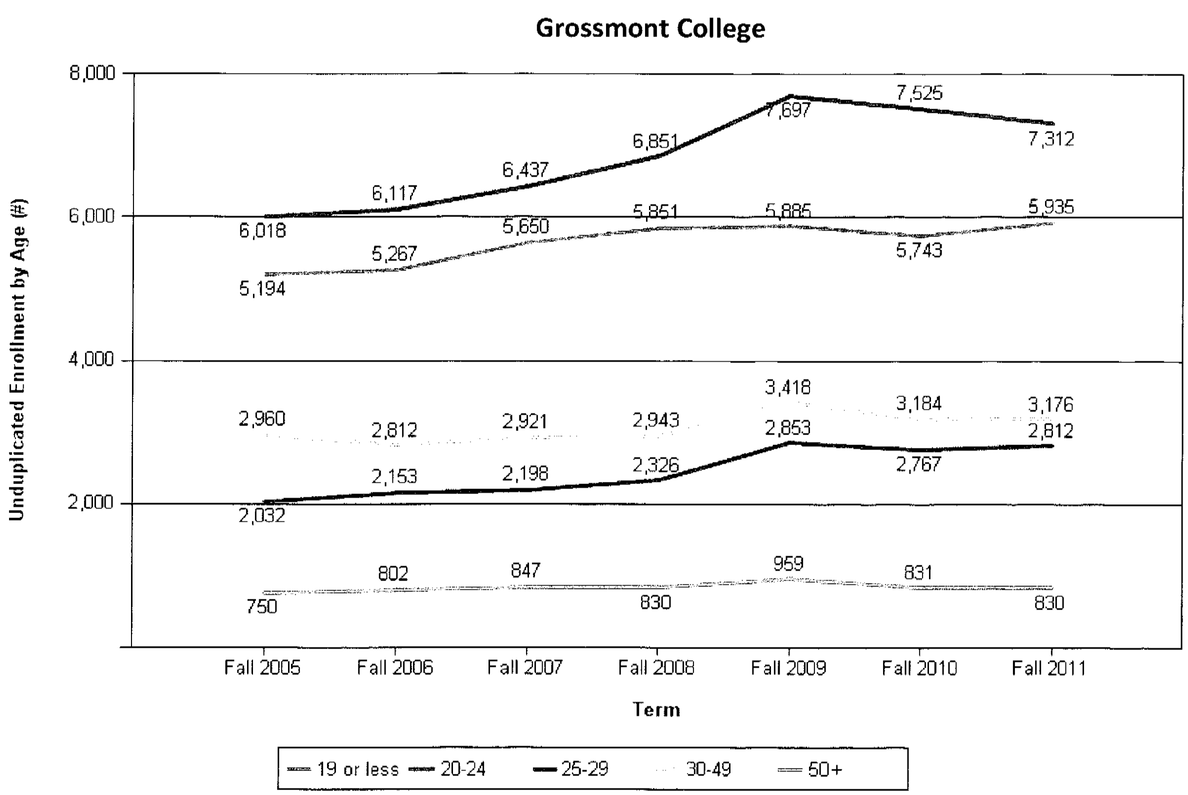
Age	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
19 or less	2,395	44.3 %	2,496	46.0 %	2,585	46.4 %	2,747	47.6 %	2,572	41.9 %	2,577	42.8 %	2,475	41.9 %
20-24	1,889	35.0 %	1,850	34.1 %	1,901	34.1 %	1,946	33.7 %	2,159	35.2 %	2,035	33.8 %	2,050	34.7 %
25-29	533	9.9 %	520	9.6 %	551	9.9 %	502	8.7 %	698	11.4 %	679	11.3 %	694	11.8 %
30-49	520	9.6 %	502	9.2 %	461	8.3 %	497	8.6 %	599	9.8 %	641	10.6 %	587	9.9 %
50+	66	1.2 %	60	1.1 %	78	1.4 %	79	1.4 %	111	1.8 %	90	1.5 %	96	1.6 %
Total	5,403	100.0 %	5,428	100.0 %	5,576	100.0 %	5,771	100.0 %	6,139	100.0 %	6,022	100.0 %	5,902	100.0 %

Grossmont College

Age	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
19 or less	5,194	30.6 %	5,267	30.7 %	5,650	31.3 %	5,851	31.1 %	5,885	28.3 %	5,743	28.6 %	5,935	29.6 %
20-24	6,018	35.5 %	6,117	35.7 %	6,437	35.7 %	6,851	36.4 %	7,697	37.0 %	7,525	37.5 %	7,312	36.4 %
25-29	2,032	12.0 %	2,153	12.6 %	2,198	12.2 %	2,326	12.4 %	2,853	13.7 %	2,767	13.8 %	2,812	14.0 %
30-49	2,960	17.5 %	2,812	16.4 %	2,921	16.2 %	2,943	15.7 %	3,418	16.4 %	3,184	15.9 %	3,176	15.8 %
50+	750	4.4 %	802	4.7 %	847	4.7 %	830	4.4 %	959	4.6 %	831	4.1 %	830	4.1 %
Total	16,954	100.0 %	17,151	100.0 %	18,053	100.0 %	18,801	100.0 %	20,812	100.0 %	20,050	100.0 %	20,065	100.0 %

Enrollment by Age (Unduplicated Student Count)





Enrollment by Ethnicity (Duplicated Student Counts)

Mathematics

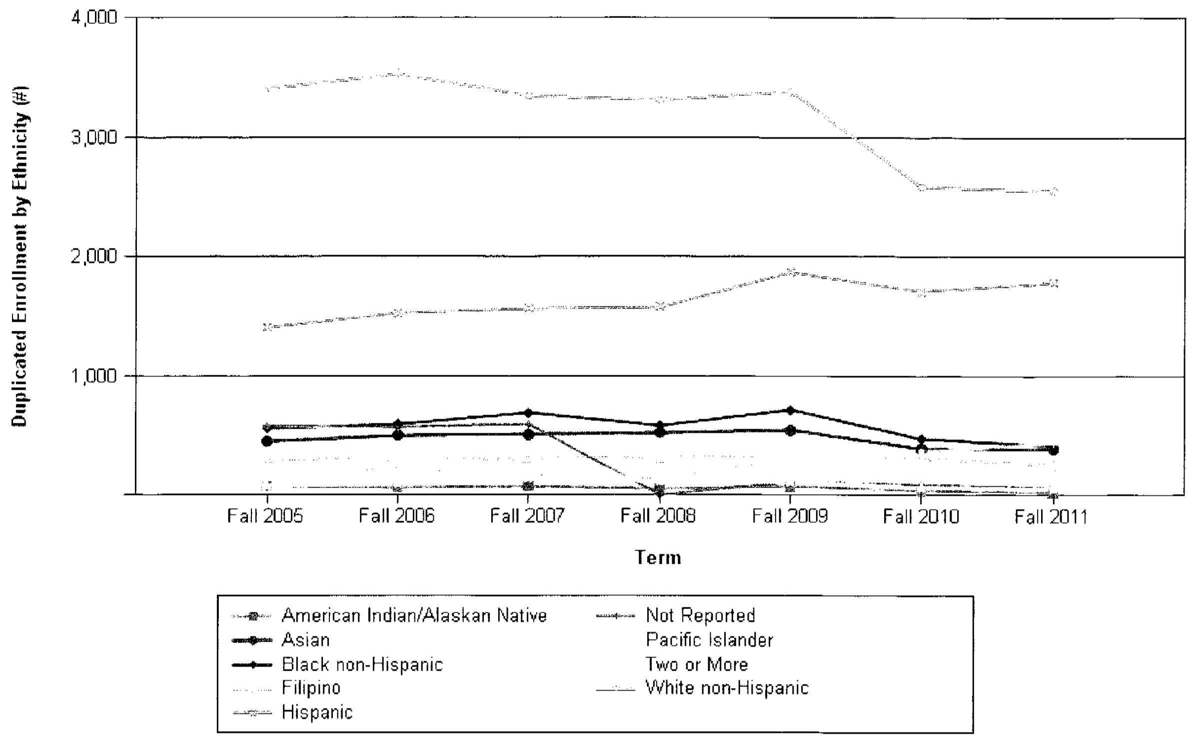
Ethnicity	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	77	1.1 %	63	0.8 %	82	1.1 %	55	0.7 %	71	0.9 %	38	0.6 %	23	0.4 %
Asian	454	6.4 %	505	6.8 %	510	6.9 %	528	7.2 %	546	6.8 %	395	6.3 %	389	6.4 %
Black non-Hispanic	565	8.0 %	600	8.1 %	692	9.3 %	586	8.0 %	715	9.0 %	478	7.7 %	412	6.8 %
Filipino	313	4.4 %	295	4.0 %	313	4.2 %	318	4.3 %	336	4.2 %	310	5.0 %	258	4.2 %
Hispanic	1,410	19.9 %	1,526	20.6 %	1,571	21.1 %	1,586	21.6 %	1,874	23.5 %	1,709	27.4 %	1,789	29.3 %
Not Reported	583	8.2 %	572	7.7 %	595	8.0 %	689	9.4 %	628	7.9 %	281	4.5 %	173	2.8 %
Pacific Islander	78	1.1 %	104	1.4 %	148	2.0 %	121	1.6 %	115	1.4 %	66	1.1 %	57	0.9 %
Two or More	190	2.7 %	222	3.0 %	170	2.3 %	141	1.9 %	307	3.8 %	369	5.9 %	445	7.3 %
White non-Hispanic	3,416	48.2 %	3,538	47.6 %	3,352	45.1 %	3,311	45.1 %	3,386	42.4 %	2,587	41.5 %	2,556	41.9 %
Total	7,086	100.0 %	7,425	100.0 %	7,433	100.0 %	7,335	100.0 %	7,978	100.0 %	6,233	100.0 %	6,102	100.0 %

Grossmont College

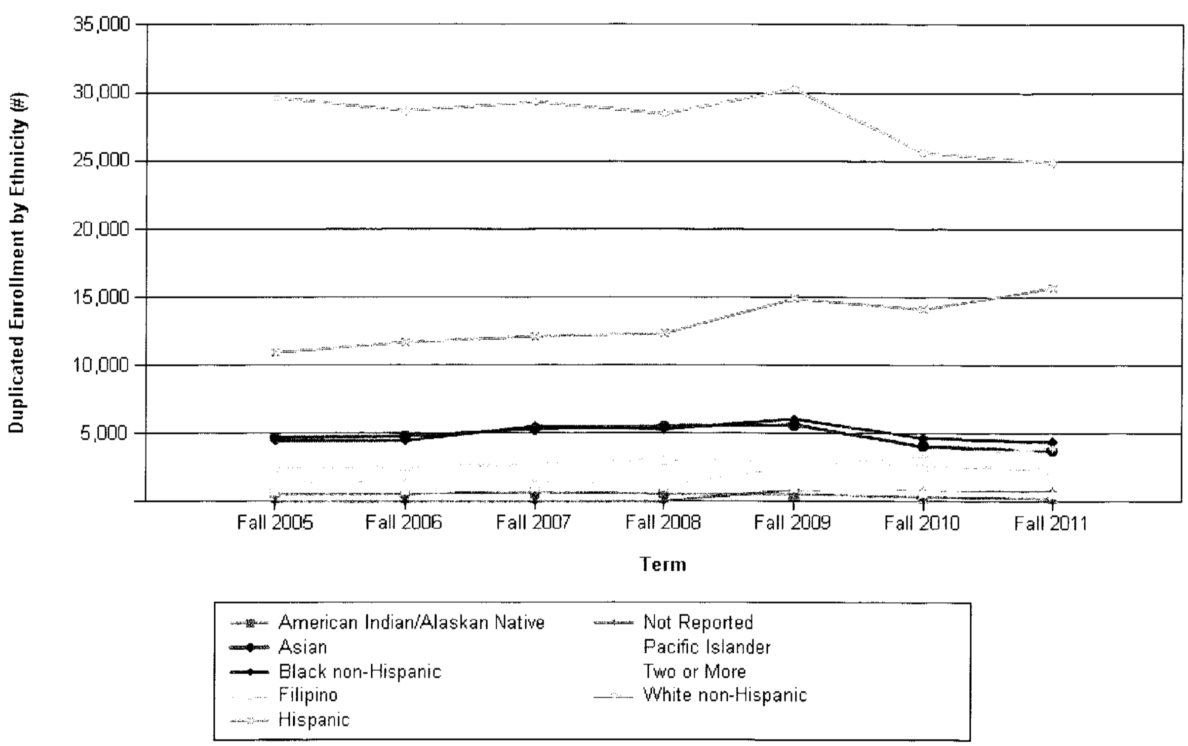
Ethnicity	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	596	1.0 %	575	1.0 %	631	1.0 %	566	0.9 %	515	0.7 %	346	0.6 %	285	0.5 %
Asian	4,706	7.9 %	4,810	8.0 %	5,322	8.4 %	5,541	8.7 %	5,614	8.1 %	4,109	7.0 %	3,793	6.6 %
Black non-Hispanic	4,518	7.6 %	4,527	7.5 %	5,515	8.7 %	5,336	8.4 %	6,038	8.7 %	4,675	8.0 %	4,415	7.6 %
Filipino	2,565	4.3 %	2,612	4.3 %	2,735	4.3 %	3,092	4.9 %	2,916	4.2 %	2,683	4.6 %	2,350	4.1 %
Hispanic	10,970	18.4 %	11,698	19.5 %	12,119	19.2 %	12,394	19.6 %	14,933	21.6 %	14,159	24.2 %	15,728	27.2 %
Not Reported	4,659	7.8 %	4,867	8.1 %	5,044	8.0 %	5,679	9.0 %	5,199	7.5 %	2,885	4.9 %	1,878	3.3 %
Pacific Islander	726	1.2 %	807	1.3 %	1,010	1.6 %	1,096	1.7 %	952	1.4 %	620	1.1 %	521	0.9 %
Two or More	1,348	2.3 %	1,510	2.5 %	1,527	2.4 %	1,184	1.9 %	2,589	3.7 %	3,368	5.8 %	3,946	6.8 %
White non-Hispanic	29,599	49.6 %	28,642	47.7 %	29,324	46.4 %	28,450	44.9 %	30,308	43.9 %	25,622	43.8 %	24,859	43.0 %
Total	59,687	100.0 %	60,048	100.0 %	63,227	100.0 %	63,338	100.0 %	69,064	100.0 %	58,467	100.0 %	57,775	100.0 %

Enrollment by Ethnicity (Duplicated Student Counts)

Mathematics



Grossmont College



Enrollment by Ethnicity (Unduplicated Student Counts)

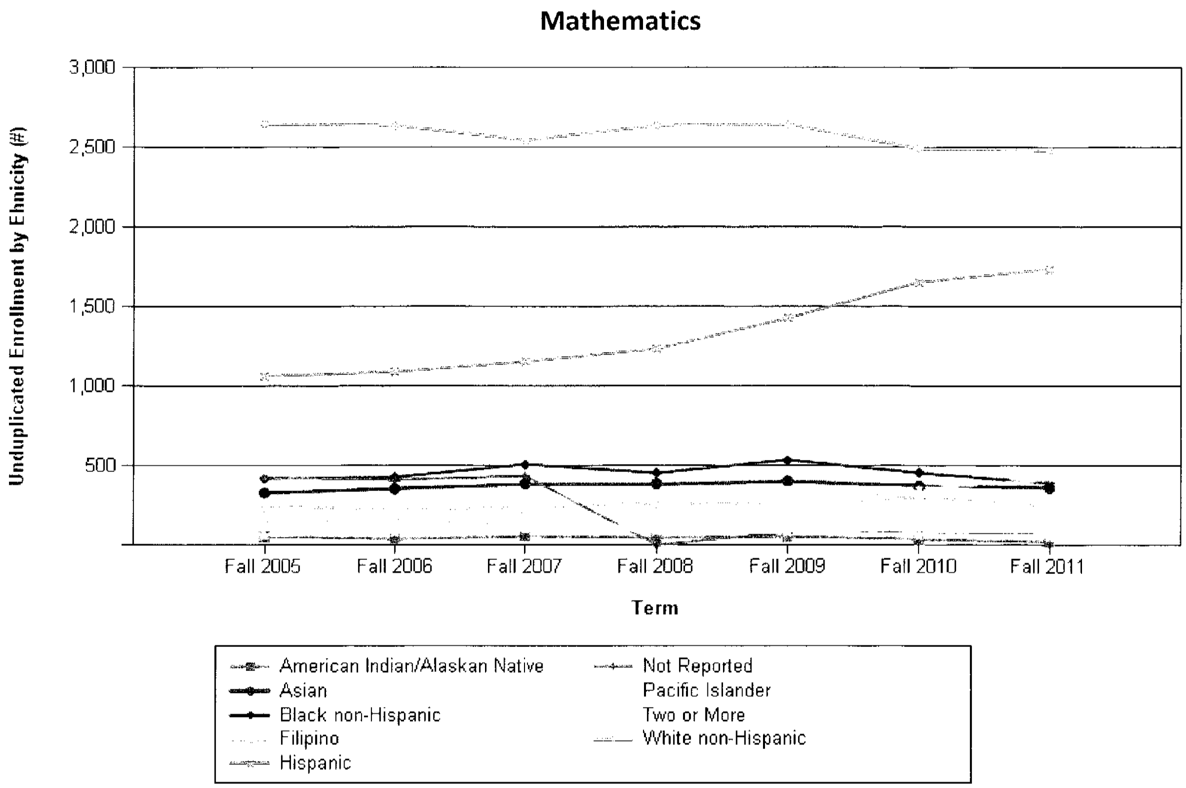
Mathematics

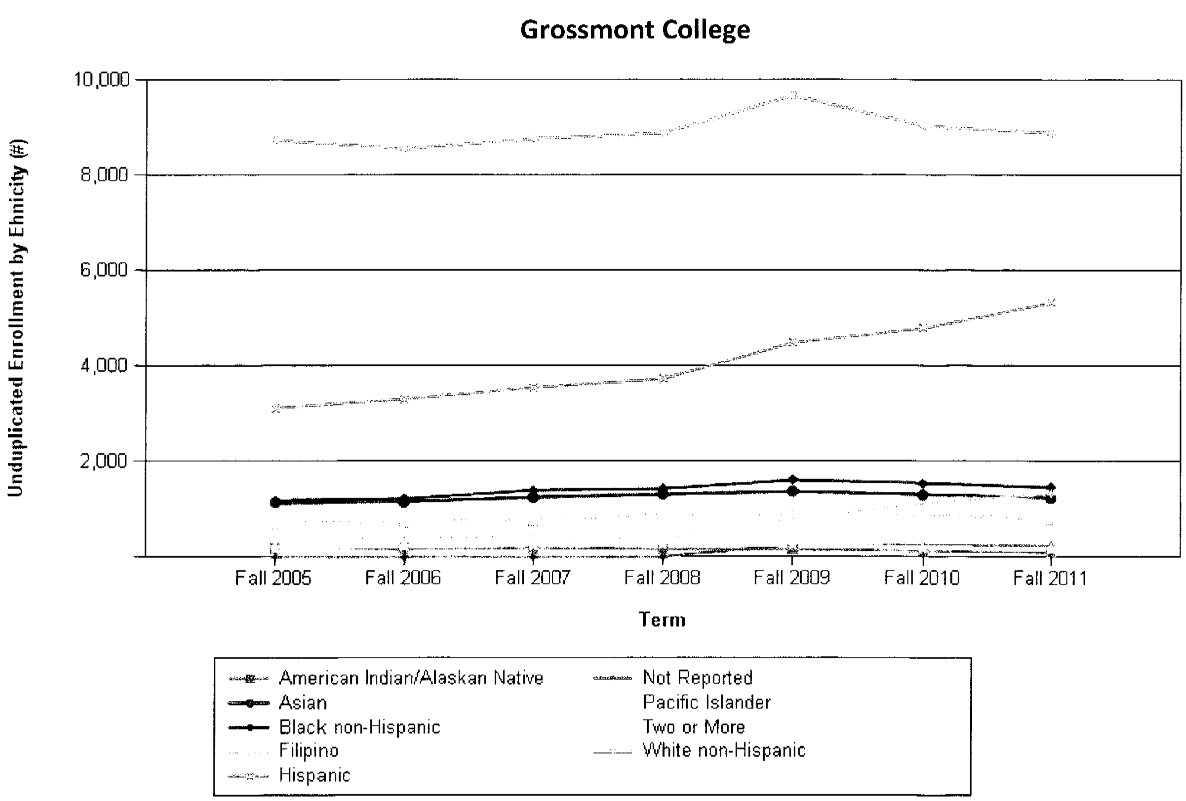
Ethnicity	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	55	1.0 %	42	0.8 %	60	1.1 %	45	0.8 %	57	0.9 %	36	0.6 %	23	0.4 %
Asian	331	6.1 %	356	6.6 %	389	7.0 %	389	6.7 %	407	6.6 %	375	6.2 %	364	6.2 %
Black non-Hispanic	421	7.8 %	431	7.9 %	509	9.1 %	459	8.0 %	535	8.7 %	461	7.7 %	394	6.7 %
Filipino	245	4.5 %	220	4.1 %	238	4.3 %	264	4.6 %	261	4.3 %	304	5.0 %	252	4.3 %
Hispanic	1,065	19.7 %	1,094	20.2 %	1,159	20.8 %	1,239	21.5 %	1,433	23.3 %	1,655	27.5 %	1,736	29.4 %
Not Reported	430	8.0 %	408	7.5 %	437	7.8 %	528	9.1 %	473	7.7 %	270	4.5 %	167	2.8 %
Pacific Islander	63	1.2 %	82	1.5 %	108	1.9 %	94	1.6 %	85	1.4 %	65	1.1 %	55	0.9 %
Two or More	144	2.7 %	157	2.9 %	131	2.3 %	114	2.0 %	243	4.0 %	358	5.9 %	423	7.2 %
White non-Hispanic	2,649	49.0 %	2,638	48.6 %	2,545	45.6 %	2,639	45.7 %	2,645	43.1 %	2,498	41.5 %	2,488	42.2 %
Total	5,403	100.0 %	5,428	100.0 %	5,576	100.0 %	5,771	100.0 %	6,139	100.0 %	6,022	100.0 %	5,902	100.0 %

Enrollment by Ethnicity (Unduplicated Student Counts)

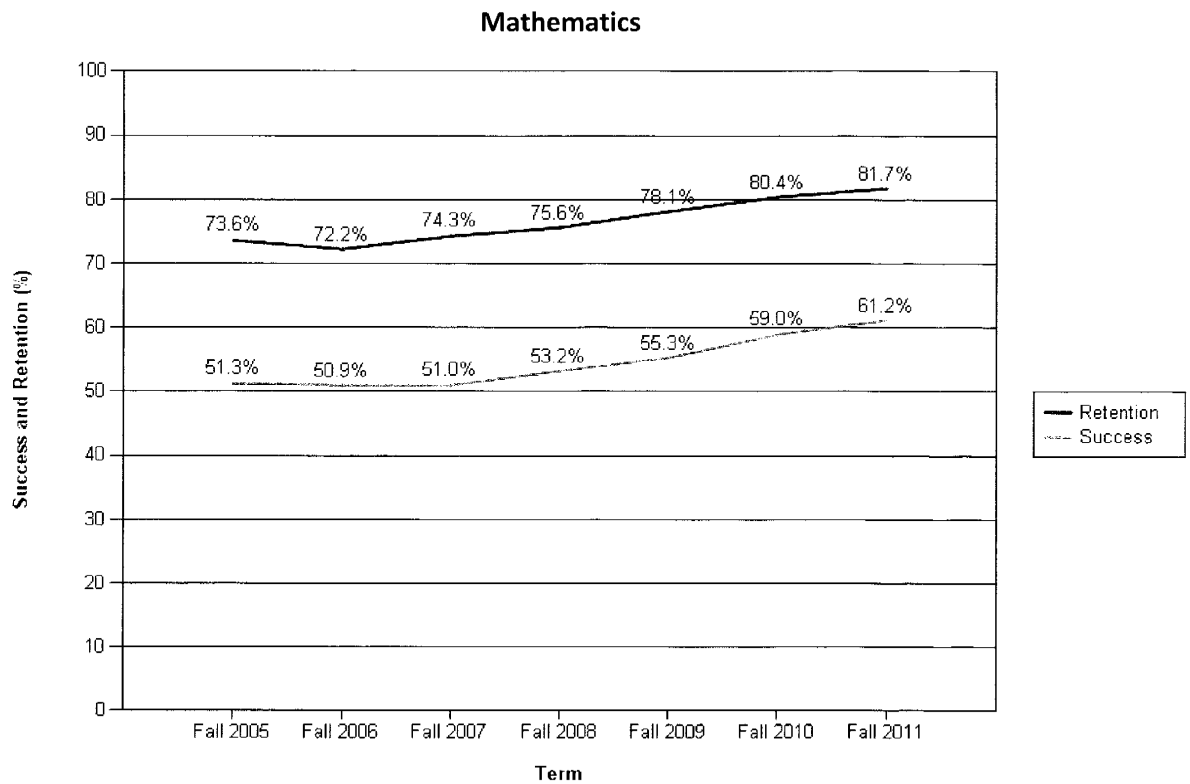
Ethnicity	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	184	1.1 %	171	1.0 %	184	1.0 %	171	0.9 %	155	0.7 %	125	0.6 %	104	0.5 %
Asian	1,140	6.7 %	1,151	6.7 %	1,244	6.9 %	1,320	7.0 %	1,379	6.6 %	1,301	6.5 %	1,239	6.2 %
Black non-Hispanic	1,182	7.0 %	1,223	7.1 %	1,392	7.7 %	1,441	7.7 %	1,627	7.8 %	1,544	7.7 %	1,476	7.4 %
Filipino	705	4.2 %	725	4.2 %	759	4.2 %	901	4.8 %	878	4.2 %	895	4.5 %	789	3.9 %
Hispanic	3,119	18.4 %	3,308	19.3 %	3,552	19.7 %	3,744	19.9 %	4,506	21.7 %	4,814	24.0 %	5,352	26.7 %
Not Reported	1,316	7.8 %	1,367	8.0 %	1,455	8.1 %	1,695	9.0 %	1,522	7.3 %	1,011	5.0 %	699	3.5 %
Pacific Islander	182	1.1 %	216	1.3 %	248	1.4 %	272	1.4 %	260	1.2 %	191	1.0 %	172	0.9 %
Two or More	384	2.3 %	419	2.4 %	446	2.5 %	370	2.0 %	802	3.9 %	1,117	5.6 %	1,341	6.7 %
White non-Hispanic	8,742	51.6 %	8,571	50.0 %	8,773	48.6 %	8,887	47.3 %	9,683	46.5 %	9,052	45.1 %	8,893	44.3 %
Total	16,954	100.0 %	17,151	100.0 %	18,053	100.0 %	18,801	100.0 %	20,812	100.0 %	20,050	100.0 %	20,065	100.0 %

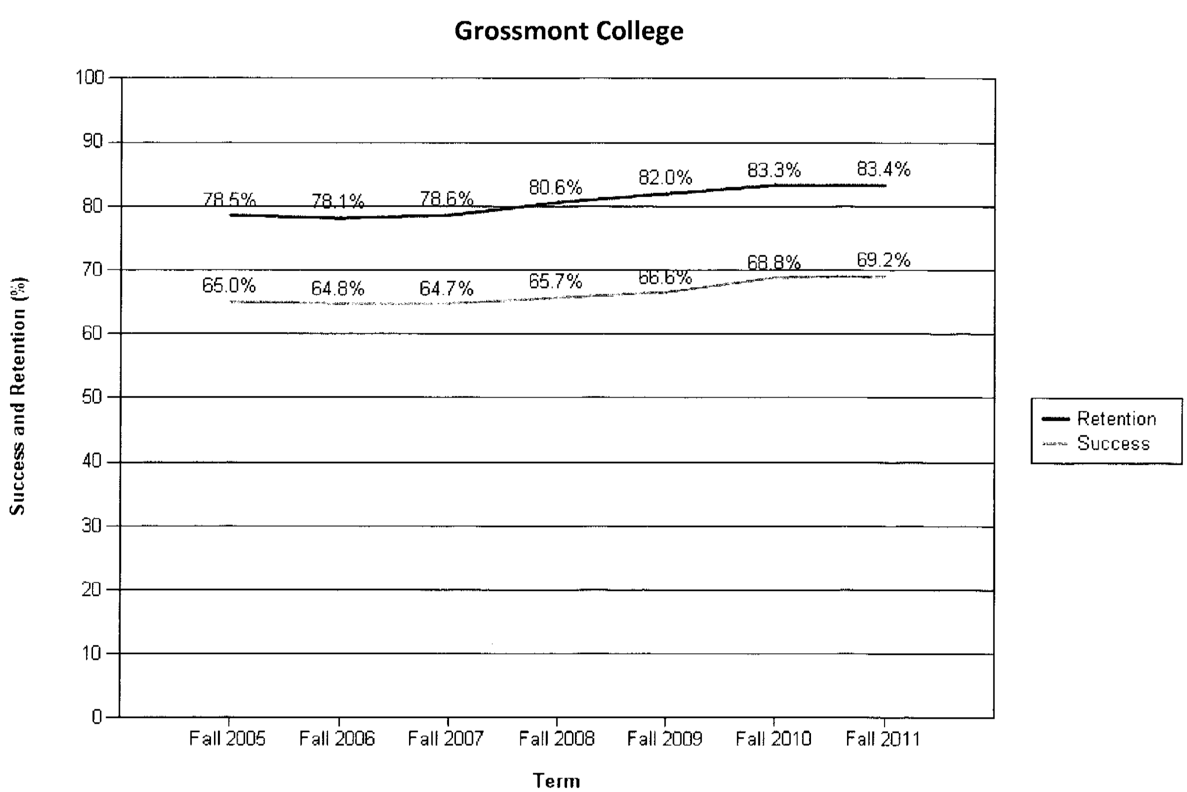
Enrollment by Ethnicity (Unduplicated Student Counts)





Course Success and Retention





Success by Gender

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Male	1,257	48.9%	1,262	48.9%	1,295	49.%	1,381	50.8%	1,632	54.2%	1,702	57.8%	1,736	59.3%
Female	1,575	53.4%	1,541	52.8%	1,599	52.7%	1,719	55.2%	1,813	55.9%	1,947	60.2%	1,972	63.2%
Not Reported	10	43.5%	12	36.4%	11	47.8%	25	59.5%	41	71.9%	28	50.9%	24	45.3%
Total	2,842	51.3%	2,815	50.9%	2,905	51.%	3,125	53.2%	3,486	55.3%	3,677	59.%	3,732	61.2%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Male	13,644	62.3%	13,993	63.4%	14,744	62.5%	15,087	63.%	17,412	65.1%	17,237	67.6%	17,426	67.9%
Female	19,031	67.1%	18,824	65.8%	19,680	66.5%	20,832	67.9%	22,375	67.7%	21,980	69.8%	21,474	70.3%
Not Reported	140	64.8%	207	67.2%	222	67.7%	298	67.6%	346	66.5%	309	63.6%	335	65.9%
Total	32,815	65.%	33,024	64.8%	34,646	64.7%	36,217	65.7%	40,133	66.6%	39,526	68.8%	39,235	69.2%

No Success by Gender

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Male	584	22.7%	560	21.7%	625	23.6%	630	23.2%	700	23.2%	654	22.2%	643	22.%
Female	646	21.9%	605	20.7%	700	23.1%	677	21.7%	733	22.6%	666	20.6%	595	19.1%
Not Reported	6	26.1%	10	30.3%	6	26.1%	9	21.4%	10	17.5%	12	21.8%	14	26.4%
Total	1,236	22.3%	1,175	21.3%	1,331	23.4%	1,316	22.4%	1,443	22.9%	1,332	21.4%	1,252	20.5%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Male	3,302	15.1%	3,213	14.6%	3,592	15.2%	3,981	16.6%	4,511	16.9%	4,039	15.8%	3,973	15.5%
Female	3,479	12.3%	3,557	12.4%	3,783	12.8%	4,134	13.5%	4,740	14.3%	4,239	13.5%	4,031	13.2%
Not Reported	32	14.8%	45	14.6%	38	11.6%	55	12.5%	56	10.8%	74	15.2%	71	14.%
Total	6,813	13.5%	6,815	13.4%	7,413	13.9%	8,170	14.8%	9,307	15.4%	8,352	14.5%	8,075	14.2%

Withdrawal by Gender

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Male	727	28.3%	758	29.4%	723	27.4%	706	26.%	679	22.6%	590	20.%	549	18.8%
Female	728	24.7%	770	26.4%	733	24.2%	717	23.%	695	21.4%	619	19.2%	554	17.8%
Not Reported	7	30.4%	11	33.3%	6	26.1%	8	19.%	6	10.5%	15	27.3%	15	28.3%
Total	1,462	26.4%	1,539	27.8%	1,462	25.7%	1,431	24.4%	1,380	21.9%	1,224	19.6%	1,118	18.3%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Male	4,938	22.6%	4,873	22.1%	5,238	22.2%	4,883	20.4%	4,805	18.%	4,236	16.6%	4,261	16.6%
Female	5,853	20.6%	6,212	21.7%	6,152	20.8%	5,731	18.7%	5,925	17.9%	5,263	16.7%	5,025	16.5%
Not Reported	44	20.4%	56	18.2%	68	20.7%	88	20.%	118	22.7%	103	21.2%	102	20.1%
Total	10,835	21.5%	11,141	21.9%	11,458	21.4%	10,702	19.4%	10,848	18.%	9,602	16.7%	9,388	16.6%

Retention by Gender

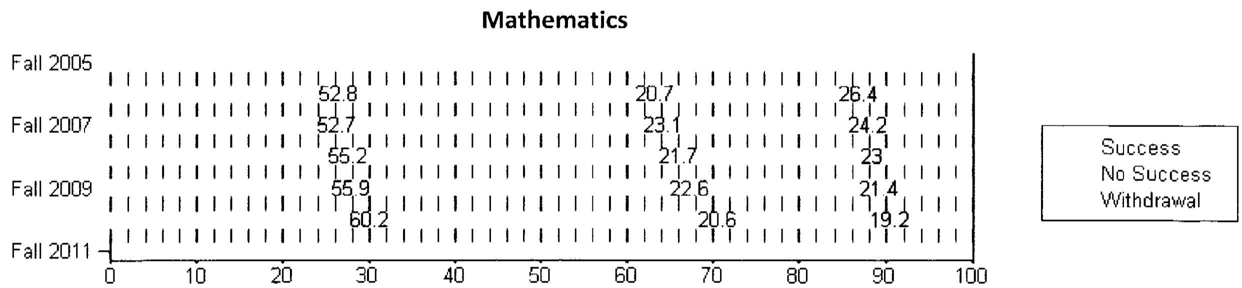
Mathematics

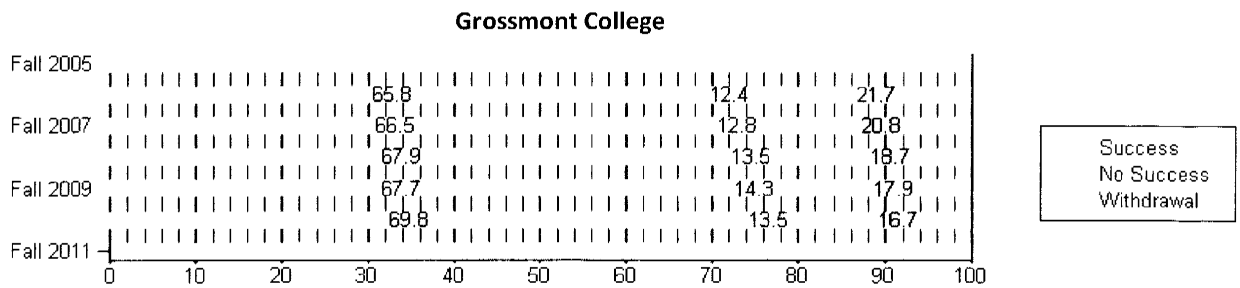
	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Male	1,841	71.7%	1,822	70.6%	1,920	72.6%	2,011	74.%	2,332	77.4%	2,356	80.%	2,379	81.3%
Female	2,221	75.3%	2,146	73.6%	2,299	75.8%	2,396	77.%	2,546	78.6%	2,613	80.8%	2,567	82.2%
Not Reported	16	69.6%	22	66.7%	17	73.9%	34	81.%	51	89.5%	40	72.7%	38	71.7%
Total	4,078	73.6%	3,990	72.2%	4,236	74.3%	4,441	75.6%	4,929	78.1%	5,009	80.4%	4,984	81.7%

Grossmont College

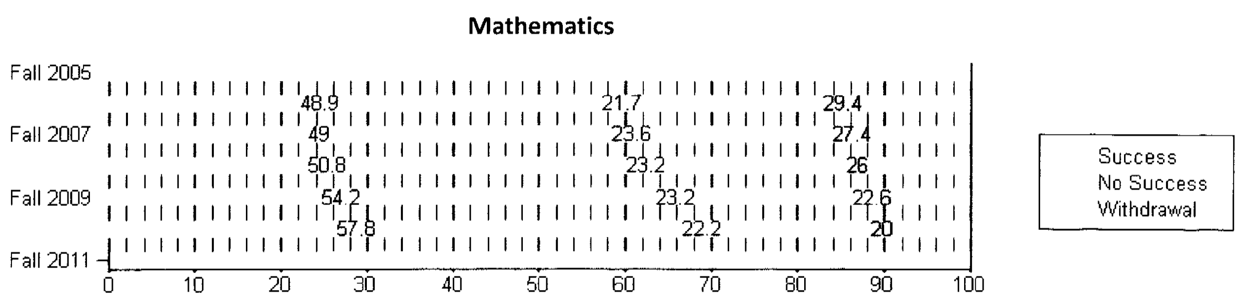
	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Gender	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Male	16,946	77.4%	17,206	77.9%	18,336	77.8%	19,068	79.6%	21,923	82.%	21,276	83.4%	21,399	83.4%
Female	22,510	79.4%	22,381	78.3%	23,463	79.2%	24,966	81.3%	27,115	82.1%	26,219	83.3%	25,505	83.5%
Not Reported	172	79.6%	252	81.8%	260	79.3%	353	80.%	402	77.3%	383	78.8%	406	79.9%
Total	39,628	78.5%	39,839	78.1%	42,059	78.6%	44,387	80.6%	49,440	82.%	47,878	83.3%	47,310	83.4%

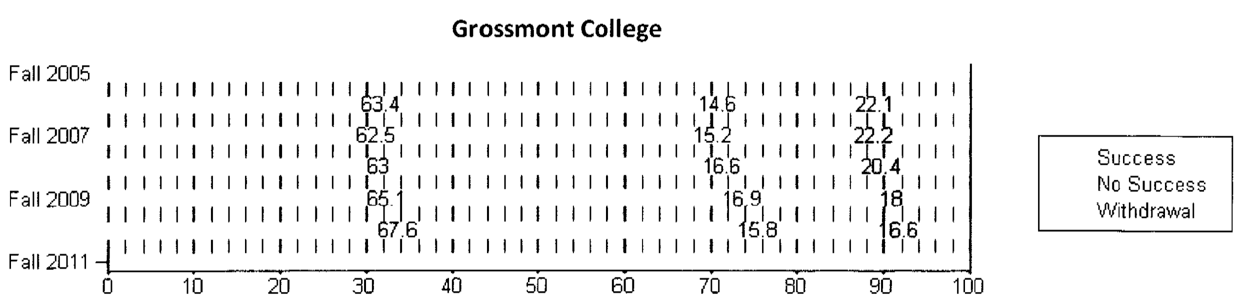
Success, No Success, and Withdrawal by Gender: Female





Success, No Success, and Withdrawal by Gender: Male





Success by Age

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	1,202	49.4%	1,206	47.6%	1,269	48.3%	1,397	50.3%	1,397	53.2%	1,492	56.7%	1,592	62.5%
20-24	990	51.%	974	51.3%	1,026	52.5%	1,071	53.9%	1,224	55.3%	1,252	58.8%	1,211	57.%
25-29	308	55.1%	311	58.%	316	55.8%	295	56.9%	418	57.4%	429	60.9%	469	64.2%
30-49	308	56.9%	285	56.8%	243	52.1%	310	61.1%	379	60.8%	442	65.6%	391	64.6%
50+	34	53.1%	39	66.1%	51	63.8%	52	62.7%	68	57.1%	62	67.4%	69	70.4%
Total	2,842	51.3%	2,815	50.9%	2,905	51.%	3,125	53.2%	3,486	55.3%	3,677	59.%	3,732	61.2%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	11,609	62.7%	11,718	62.6%	12,420	62.4%	12,764	63.%	13,314	65.3%	12,848	67.1%	13,413	69.%
20-24	11,782	63.7%	12,143	63.8%	12,620	63.8%	13,414	64.5%	14,880	65.1%	14,782	67.5%	14,022	66.8%
25-29	3,533	67.2%	3,678	67.3%	3,899	67.3%	4,165	69.8%	4,984	68.2%	4,936	70.5%	5,026	70.6%
30-49	4,777	71.5%	4,436	70.6%	4,531	70.7%	4,742	72.8%	5,668	71.2%	5,689	73.6%	5,541	73.6%
50+	1,114	73.4%	1,049	72.%	1,176	73.%	1,132	72.9%	1,287	72.5%	1,271	75.%	1,233	76.5%
Total	32,815	65.%	33,024	64.8%	34,646	64.7%	36,217	65.7%	40,133	66.6%	39,526	68.8%	39,235	69.2%

No Success by Age

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	634	26.%	646	25.5%	722	27.5%	728	26.2%	713	27.2%	658	25.%	574	22.5%
20-24	419	21.6%	372	19.6%	431	22.%	407	20.5%	464	20.9%	437	20.5%	456	21.5%
25-29	92	16.5%	73	13.6%	89	15.7%	98	18.9%	138	19.%	125	17.7%	120	16.4%
30-49	81	15.%	79	15.7%	78	16.7%	75	14.8%	105	16.9%	100	14.8%	95	15.7%
50+	10	15.6%	5	8.5%	11	13.8%	8	9.6%	23	19.3%	12	13.%	7	7.1%
Total	1,236	22.3%	1,175	21.3%	1,331	23.4%	1,316	22.4%	1,443	22.9%	1,332	21.4%	1,252	20.5%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	3,147	17.%	3,054	16.3%	3,558	17.9%	3,651	18.%	3,796	18.6%	3,451	18.%	3,221	16.6%
20-24	2,486	13.5%	2,556	13.4%	2,580	13.%	3,061	14.7%	3,518	15.4%	3,202	14.6%	3,105	14.8%
25-29	550	10.5%	576	10.5%	622	10.7%	687	11.5%	954	13.%	814	11.6%	873	12.3%
30-49	516	7.7%	512	8.1%	547	8.5%	619	9.5%	855	10.7%	747	9.7%	763	10.1%
50+	114	7.5%	117	8.%	106	6.6%	152	9.8%	184	10.4%	138	8.1%	113	7.%
Total	6,813	13.5%	6,815	13.4%	7,413	13.9%	8,170	14.8%	9,307	15.4%	8,352	14.5%	8,075	14.2%

Withdrawal by Age

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	599	24.6%	681	26.9%	639	24.3%	653	23.5%	514	19.6%	482	18.3%	380	14.9%
20-24	532	27.4%	553	29.1%	499	25.5%	508	25.6%	527	23.8%	441	20.7%	456	21.5%
25-29	159	28.4%	152	28.4%	161	28.4%	125	24.1%	172	23.6%	151	21.4%	141	19.3%
30-49	152	28.1%	138	27.5%	145	31.1%	122	24.1%	139	22.3%	132	19.6%	119	19.7%
50+	20	31.3%	15	25.4%	18	22.5%	23	27.7%	28	23.5%	18	19.6%	22	22.4%
Total	1,462	26.4%	1,539	27.8%	1,462	25.7%	1,431	24.4%	1,380	21.9%	1,224	19.6%	1,118	18.3%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	3,770	20.3%	3,953	21.1%	3,931	19.7%	3,838	19.%	3,269	16.%	2,841	14.8%	2,815	14.5%
20-24	4,215	22.8%	4,348	22.8%	4,595	23.2%	4,322	20.8%	4,458	19.5%	3,927	17.9%	3,862	18.4%
25-29	1,174	22.3%	1,215	22.2%	1,272	22.%	1,117	18.7%	1,375	18.8%	1,252	17.9%	1,224	17.2%
30-49	1,387	20.8%	1,335	21.2%	1,332	20.8%	1,157	17.8%	1,441	18.1%	1,297	16.8%	1,221	16.2%
50+	289	19.1%	290	19.9%	328	20.4%	268	17.3%	305	17.2%	285	16.8%	266	16.5%
Total	10,835	21.5%	11,141	21.9%	11,458	21.4%	10,702	19.4%	10,848	18.%	9,602	16.7%	9,388	16.6%

Retention by Age

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	1,836	75.4%	1,852	73.1%	1,991	75.7%	2,125	76.5%	2,110	80.4%	2,150	81.7%	2,166	85.1%
20-24	1,409	72.6%	1,346	70.9%	1,457	74.5%	1,478	74.4%	1,688	76.2%	1,689	79.3%	1,667	78.5%
25-29	400	71.6%	384	71.6%	405	71.6%	393	75.9%	556	76.4%	554	78.6%	589	80.7%
30-49	389	71.9%	364	72.5%	321	68.9%	385	75.9%	484	77.7%	542	80.4%	486	80.3%
50+	44	68.8%	44	74.6%	62	77.5%	60	72.3%	91	76.5%	74	80.4%	76	77.6%
Total	4,078	73.6%	3,990	72.2%	4,236	74.3%	4,441	75.6%	4,929	78.1%	5,009	80.4%	4,984	81.7%

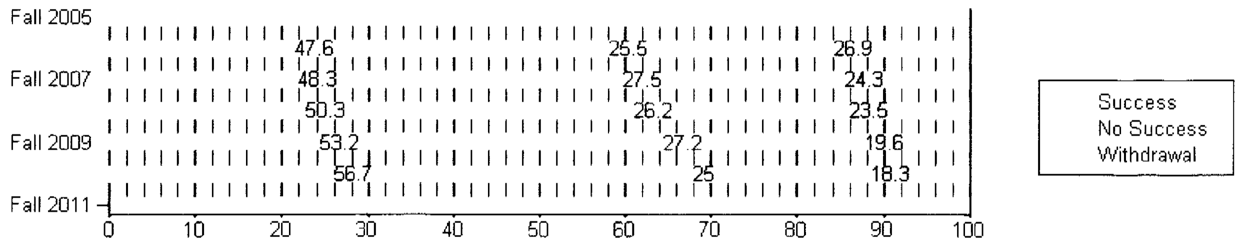
Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Age	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
19 or less	14,756	79.7%	14,772	78.9%	15,978	80.3%	16,415	81.%	17,110	84.%	16,299	85.2%	16,634	85.5%
20-24	14,268	77.2%	14,699	77.2%	15,200	76.8%	16,475	79.2%	18,398	80.5%	17,984	82.1%	17,127	81.6%
25-29	4,083	77.7%	4,254	77.8%	4,521	78.%	4,852	81.3%	5,938	81.2%	5,750	82.1%	5,899	82.8%
30-49	5,293	79.2%	4,948	78.8%	5,078	79.2%	5,361	82.2%	6,523	81.9%	6,436	83.2%	6,304	83.8%
50+	1,228	80.9%	1,166	80.1%	1,282	79.6%	1,284	82.7%	1,471	82.8%	1,409	83.2%	1,346	83.5%
Total	39,628	78.5%	39,839	78.1%	42,059	78.6%	44,387	80.6%	49,440	82.%	47,878	83.3%	47,310	83.4%

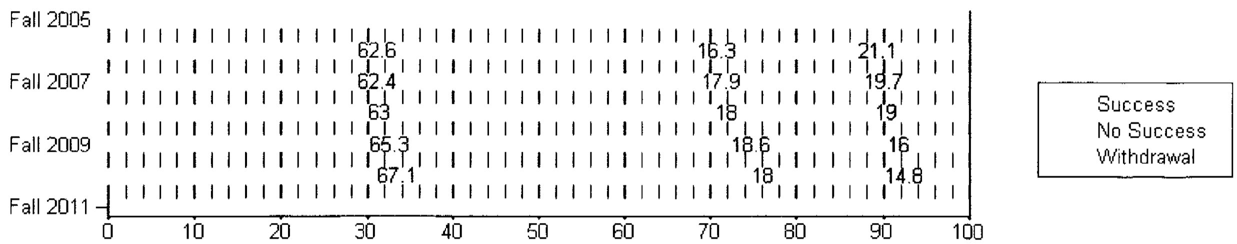
Success, No Success, and Withdrawal by Age: 19 Years or Less

Mathematics

19 Years or Less

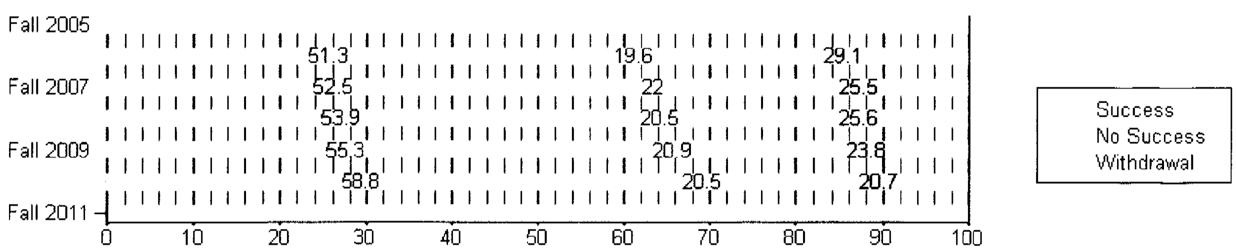


Grossmont College

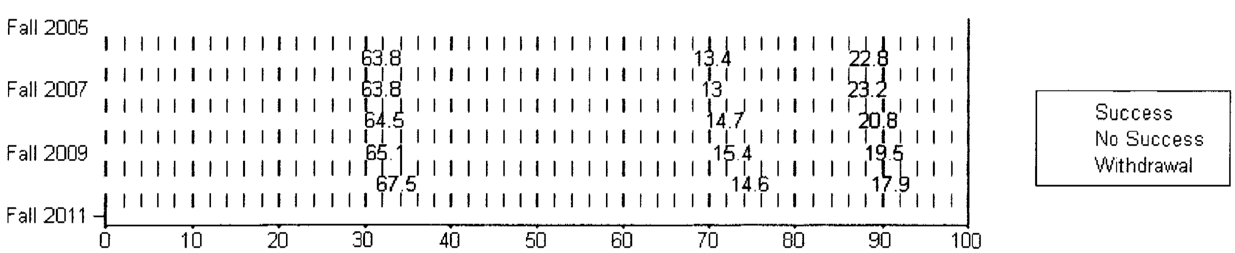


Success, No Success, and Withdrawal by Age: 20 – 24 Years

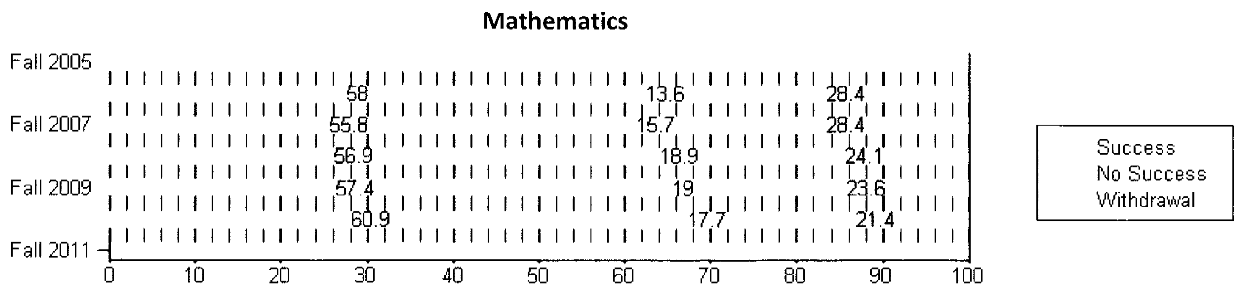
Mathematics

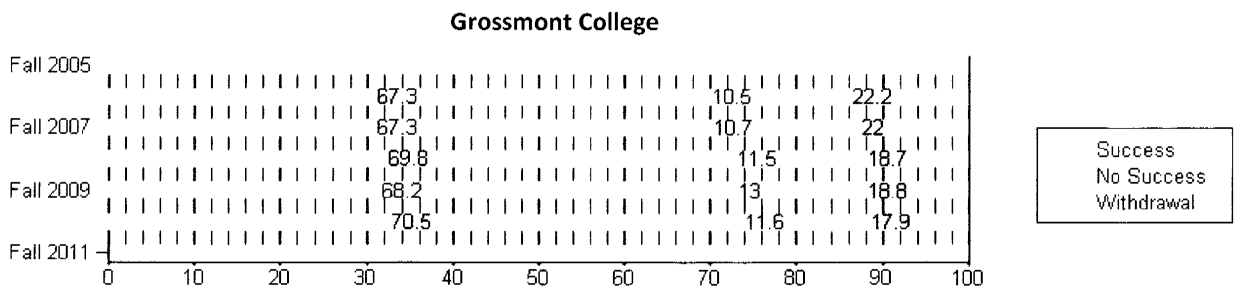


Grossmont College

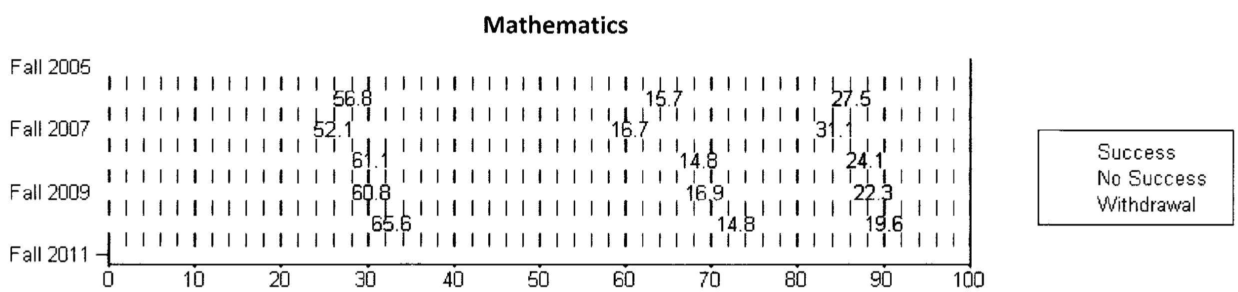


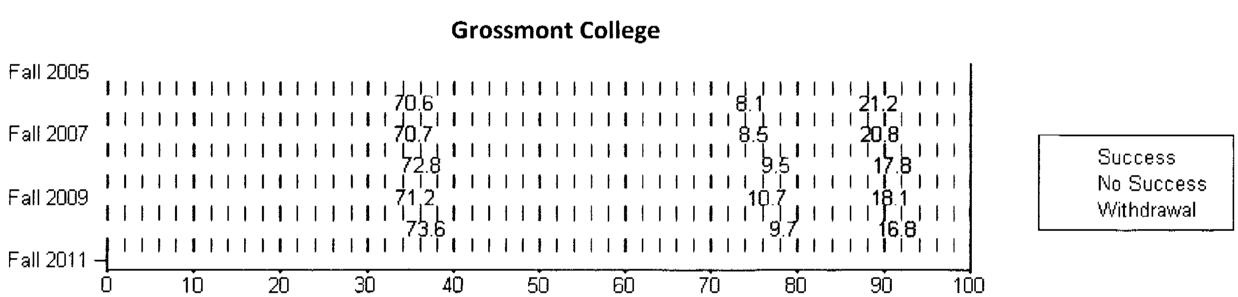
Success, No Success, and Withdrawal by Age: 25 – 29 Years





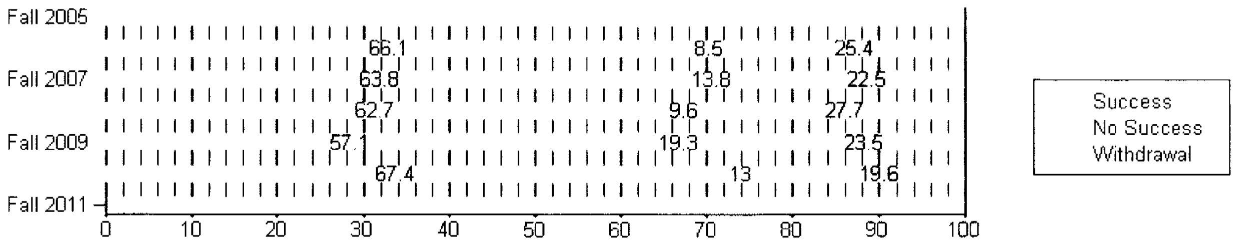
Success, No Success, and Withdrawal by Age: 30 – 49 Years





Success, No Success, and Withdrawal by Age: 50+ Years

Mathematics



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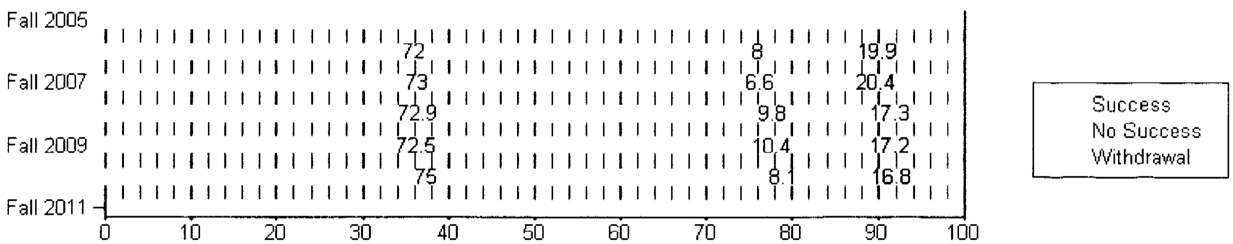


Success by Ethnicity

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	27	45.8%	16	38.1%	33	54.1%	21	45.7%	27	46.6%	20	52.6%	9	39.1%
Asian	209	62.2%	198	54.2%	273	69.1%	264	67.5%	294	70.%	289	73.2%	274	70.4%
Black non-Hispanic	155	36.3%	151	35.3%	158	30.5%	182	39.5%	224	41.2%	220	46.%	203	49.3%
Filipino	127	51.6%	117	52.5%	122	49.%	150	56.%	139	51.5%	200	64.5%	151	58.5%
Hispanic	481	44.1%	476	43.2%	527	44.7%	579	46.%	717	48.5%	892	52.2%	993	55.5%
Not Reported	249	55.7%	231	54.6%	231	52.1%	300	56.1%	286	58.8%	161	57.3%	93	53.8%
Pacific Islander	27	42.9%	32	40.5%	55	50.5%	41	42.3%	35	40.7%	34	51.5%	27	47.4%
Two or More	66	45.2%	67	42.4%	64	46.7%	45	39.1%	127	51.4%	218	59.1%	277	62.2%
White non-Hispanic	1,501	55.1%	1,527	56.3%	1,442	55.3%	1,543	57.1%	1,637	60.2%	1,643	63.5%	1,705	66.7%
Total	2,842	51.3%	2,815	50.9%	2,905	51.%	3,125	53.2%	3,486	55.3%	3,677	59.%	3,732	61.2%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	303	60.4%	263	54.9%	328	61.8%	313	62.9%	267	58.7%	218	63.9%	182	65.%
Asian	2,848	73.8%	2,903	72.5%	3,200	74.2%	3,468	77.2%	3,533	77.3%	3,111	76.6%	2,825	75.2%
Black non-Hispanic	1,847	50.5%	1,844	50.4%	2,140	48.2%	2,303	51.4%	2,678	53.1%	2,543	55.9%	2,393	55.7%
Filipino	1,350	65.8%	1,398	65.9%	1,496	65.9%	1,788	67.7%	1,717	66.5%	1,849	70.2%	1,655	71.2%
Hispanic	5,506	60.2%	5,976	60.8%	6,114	60.4%	6,483	60.5%	7,926	61.3%	8,808	63.5%	9,930	64.6%
Not Reported	2,599	66.8%	2,642	64.4%	2,782	65.9%	3,215	65.8%	3,053	68.3%	1,981	69.6%	1,297	69.9%
Pacific Islander	350	57.1%	415	60.7%	500	59.5%	588	61.9%	486	58.8%	380	62.7%	298	58.%
Two or More	635	55.9%	740	58.3%	765	58.5%	547	53.4%	1,336	58.8%	2,154	65.1%	2,564	66.%
White non-Hispanic	17,376	67.8%	16,841	67.8%	17,314	68.%	17,509	68.9%	19,137	70.5%	18,482	73.2%	18,091	74.1%
Total	32,814	65.%	33,022	64.8%	34,639	64.7%	36,214	65.7%	40,133	66.6%	39,526	68.8%	39,235	69.2%

No Success by Ethnicity

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	14	23.7%	11	26.2%	11	18.%	10	21.7%	16	27.6%	11	28.9%	6	26.1%
Asian	73	21.7%	67	18.4%	56	14.2%	69	17.6%	58	13.8%	50	12.7%	60	15.4%
Black non-Hispanic	125	29.3%	114	26.6%	159	30.7%	143	31.%	175	32.2%	147	30.8%	115	27.9%
Filipino	57	23.2%	56	25.1%	54	21.7%	63	23.5%	59	21.9%	60	19.4%	50	19.4%
Hispanic	287	26.3%	298	27.1%	323	27.4%	319	25.4%	395	26.7%	440	25.7%	442	24.7%
Not Reported	90	20.1%	81	19.1%	90	20.3%	105	19.6%	108	22.2%	53	18.9%	36	20.8%
Pacific Islander	14	22.2%	24	30.4%	33	30.3%	35	36.1%	31	36.%	16	24.2%	18	31.6%
Two or More	29	19.9%	43	27.2%	30	21.9%	31	27.%	75	30.4%	76	20.6%	91	20.4%
White non-Hispanic	547	20.1%	481	17.7%	575	22.%	541	20.%	526	19.3%	479	18.5%	434	17.%
Total	1,236	22.3%	1,175	21.3%	1,331	23.4%	1,316	22.4%	1,443	22.9%	1,332	21.4%	1,252	20.5%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	76	15.1%	77	16.1%	72	13.6%	70	14.1%	88	19.3%	62	18.2%	43	15.4%
Asian	445	11.5%	482	12.%	443	10.3%	472	10.5%	474	10.4%	426	10.5%	465	12.4%
Black non-Hispanic	713	19.5%	674	18.4%	982	22.1%	975	21.8%	1,167	23.1%	1,000	22.%	958	22.3%
Filipino	265	12.9%	288	13.6%	295	13.%	393	14.9%	398	15.4%	376	14.3%	280	12.%
Hispanic	1,490	16.3%	1,568	16.%	1,620	16.%	1,862	17.4%	2,329	18.%	2,503	18.%	2,643	17.2%
Not Reported	473	12.2%	532	13.%	546	12.9%	715	14.6%	672	15.%	369	13.%	222	12.%
Pacific Islander	115	18.8%	120	17.5%	150	17.9%	170	17.9%	162	19.6%	110	18.2%	92	17.9%
Two or More	163	14.4%	209	16.5%	187	14.3%	188	18.3%	477	21.%	562	17.%	654	16.8%
White non-Hispanic	3,073	12.%	2,864	11.5%	3,116	12.2%	3,322	13.1%	3,540	13.%	2,944	11.7%	2,718	11.1%
Total	6,813	13.5%	6,814	13.4%	7,411	13.9%	8,167	14.8%	9,307	15.4%	8,352	14.5%	8,075	14.2%

Withdrawal by Ethnicity

Mathematics

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	18	30.5%	15	35.7%	17	27.9%	15	32.6%	15	25.9%	7	18.4%	8	34.8%
Asian	54	16.1%	100	27.4%	66	16.7%	58	14.8%	68	16.2%	56	14.2%	55	14.1%
Black non-Hispanic	147	34.4%	163	38.1%	201	38.8%	136	29.5%	145	26.7%	111	23.2%	94	22.8%
Filipino	62	25.2%	50	22.4%	73	29.3%	55	20.5%	72	26.7%	50	16.1%	57	22.1%
Hispanic	322	29.5%	327	29.7%	328	27.8%	360	28.6%	365	24.7%	377	22.1%	354	19.8%
Not Reported	108	24.2%	111	26.2%	122	27.5%	130	24.3%	92	18.9%	67	23.8%	44	25.4%
Pacific Islander	22	34.9%	23	29.1%	21	19.3%	21	21.6%	20	23.3%	16	24.2%	12	21.1%
Two or More	51	34.9%	48	30.4%	43	31.4%	39	33.9%	45	18.2%	75	20.3%	77	17.3%
White non-Hispanic	678	24.9%	702	25.9%	591	22.7%	617	22.8%	558	20.5%	465	18.%	417	16.3%
Total	1,462	26.4%	1,539	27.8%	1,462	25.7%	1,431	24.4%	1,380	21.9%	1,224	19.6%	1,118	18.3%

Grossmont College

	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	123	24.5%	139	29.%	131	24.7%	115	23.1%	100	22.%	61	17.9%	55	19.6%
Asian	565	14.6%	620	15.5%	668	15.5%	554	12.3%	561	12.3%	523	12.9%	468	12.5%
Black non-Hispanic	1,094	29.9%	1,143	31.2%	1,315	29.6%	1,199	26.8%	1,197	23.7%	1,006	22.1%	949	22.1%
Filipino	436	21.3%	434	20.5%	478	21.1%	459	17.4%	467	18.1%	410	15.6%	389	16.7%
Hispanic	2,148	23.5%	2,284	23.2%	2,393	23.6%	2,365	22.1%	2,666	20.6%	2,557	18.4%	2,788	18.1%
Not Reported	817	21.%	930	22.7%	893	21.2%	953	19.5%	744	16.6%	498	17.5%	337	18.2%
Pacific Islander	148	24.1%	149	21.8%	190	22.6%	192	20.2%	179	21.6%	116	19.1%	124	24.1%
Two or More	337	29.7%	321	25.3%	355	27.2%	290	28.3%	461	20.3%	595	18.%	664	17.1%
White non-Hispanic	5,167	20.2%	5,117	20.6%	5,033	19.8%	4,575	18.%	4,473	16.5%	3,836	15.2%	3,614	14.8%
Total	10,835	21.5%	11,137	21.8%	11,456	21.4%	10,702	19.4%	10,848	18.%	9,602	16.7%	9,388	16.6%

Retention by Ethnicity

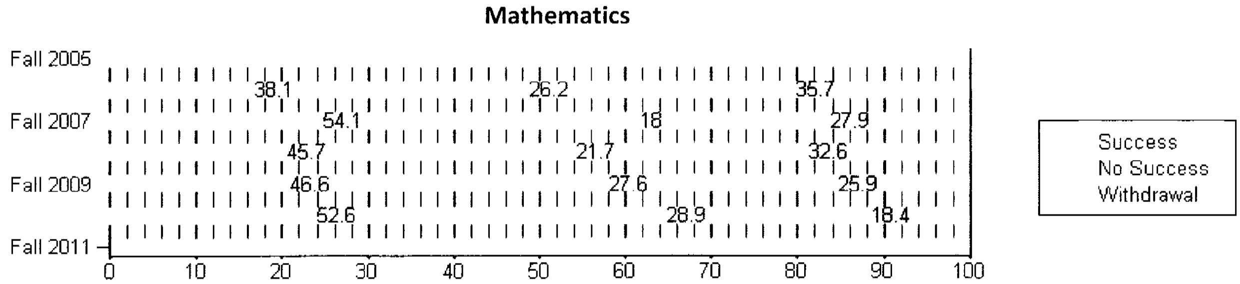
Mathematics

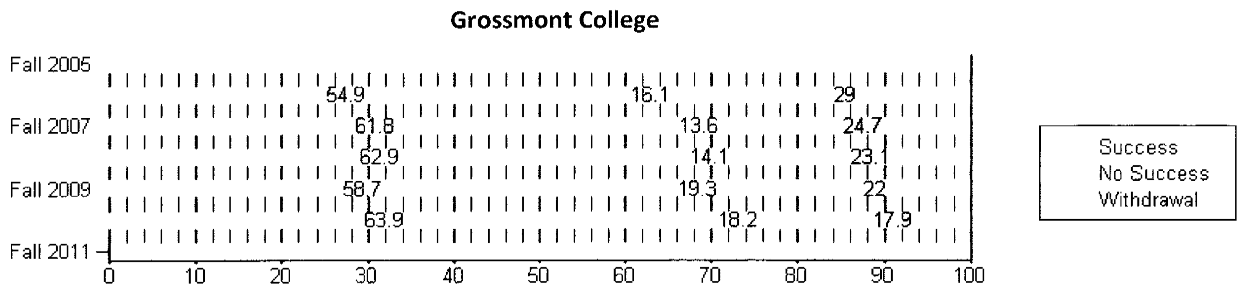
	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	41	69.5%	27	64.3%	44	72.1%	31	67.4%	43	74.1%	31	81.6%	15	65.2%
Asian	282	83.9%	265	72.6%	329	83.3%	333	85.2%	352	83.8%	339	85.8%	334	85.9%
Black non-Hispanic	280	65.6%	265	61.9%	317	61.2%	325	70.5%	399	73.3%	367	76.8%	318	77.2%
Filipino	184	74.8%	173	77.6%	176	70.7%	213	79.5%	198	73.3%	260	83.9%	201	77.9%
Hispanic	768	70.5%	774	70.3%	850	72.2%	898	71.4%	1,112	75.3%	1,332	77.9%	1,435	80.2%
Not Reported	339	75.8%	312	73.8%	321	72.5%	405	75.7%	394	81.1%	214	76.2%	129	74.6%
Pacific Islander	41	65.1%	56	70.9%	88	80.7%	76	78.4%	66	76.7%	50	75.8%	45	78.9%
Two or More	95	65.1%	110	69.6%	94	68.6%	76	66.1%	202	81.8%	294	79.7%	368	82.7%
White non-Hispanic	2,048	75.1%	2,008	74.1%	2,017	77.3%	2,084	77.2%	2,163	79.5%	2,122	82.%	2,139	83.7%
Total	4,078	73.6%	3,990	72.2%	4,236	74.3%	4,441	75.6%	4,929	78.1%	5,009	80.4%	4,984	81.7%

Grossmont College

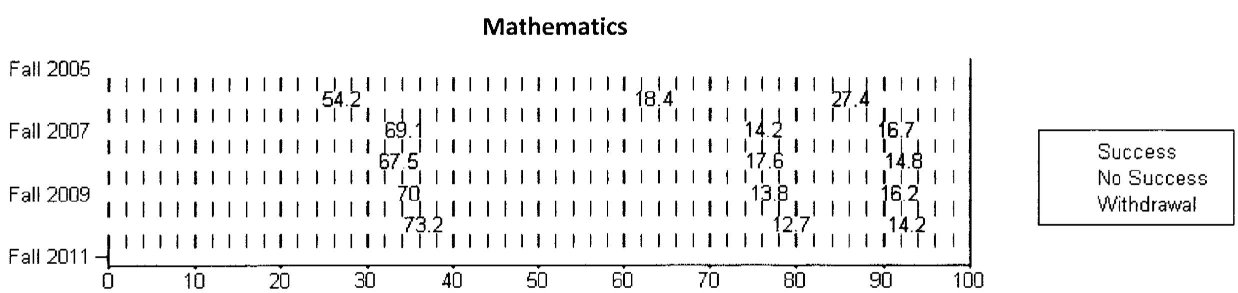
	Fall 2005		Fall 2006		Fall 2007		Fall 2008		Fall 2009		Fall 2010		Fall 2011	
Ethnicity	n	%	n	%	n	%	n	%	n	%	n	%	n	%
American Indian/Alaskan Native	379	75.5%	340	71.%	400	75.3%	383	76.9%	355	78.%	280	82.1%	225	80.4%
Asian	3,293	85.4%	3,385	84.5%	3,643	84.5%	3,940	87.7%	4,007	87.7%	3,537	87.1%	3,290	87.5%
Black non-Hispanic	2,560	70.1%	2,518	68.8%	3,122	70.4%	3,278	73.2%	3,845	76.3%	3,543	77.9%	3,351	77.9%
Filipino	1,615	78.7%	1,686	79.5%	1,791	78.9%	2,181	82.6%	2,115	81.9%	2,225	84.4%	1,935	83.3%
Hispanic	6,996	76.5%	7,544	76.8%	7,734	76.4%	8,345	77.9%	10,255	79.4%	11,311	81.6%	12,573	81.9%
Not Reported	3,072	79.%	3,174	77.3%	3,328	78.8%	3,930	80.5%	3,725	83.4%	2,350	82.5%	1,519	81.8%
Pacific Islander	465	75.9%	535	78.2%	650	77.4%	758	79.8%	648	78.4%	490	80.9%	390	75.9%
Two or More	798	70.3%	949	74.7%	952	72.8%	735	71.7%	1,813	79.7%	2,716	82.%	3,218	82.9%
White non-Hispanic	20,449	79.8%	19,705	79.4%	20,430	80.2%	20,831	82.%	22,677	83.5%	21,426	84.8%	20,809	85.2%
Total	39,627	78.5%	39,836	78.2%	42,050	78.6%	44,381	80.6%	49,440	82.%	47,878	83.3%	47,310	83.4%

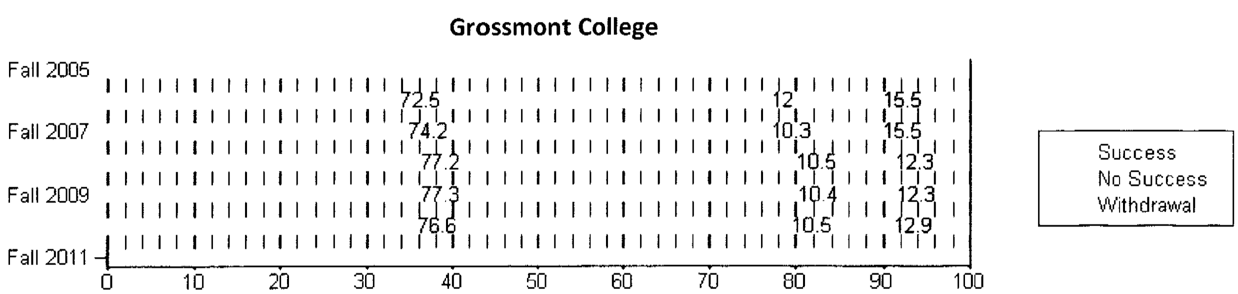
Success, No Success, and Withdrawal by Ethnicity: American Indian/Alaskan Native



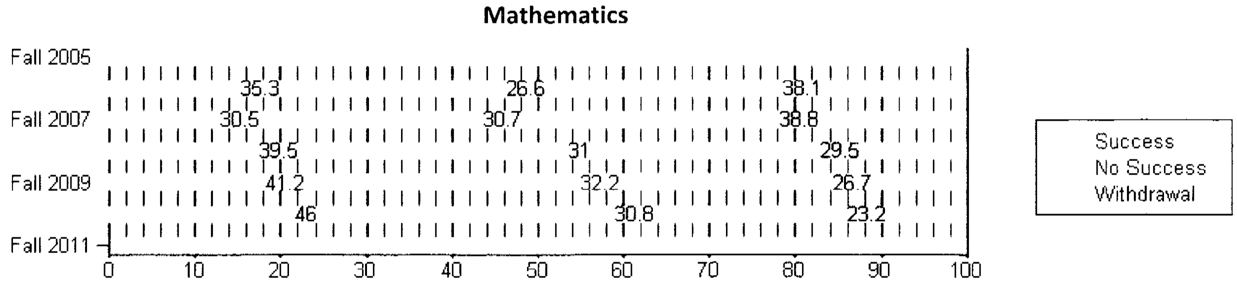


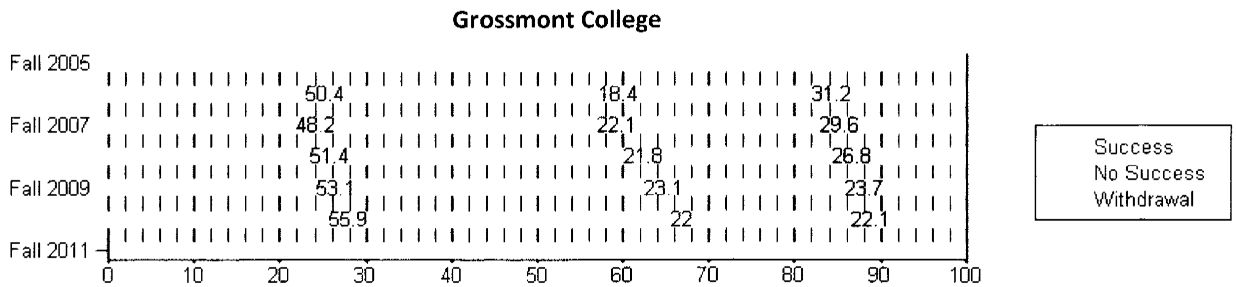
Success, No Success, and Withdrawal by Ethnicity: Asian



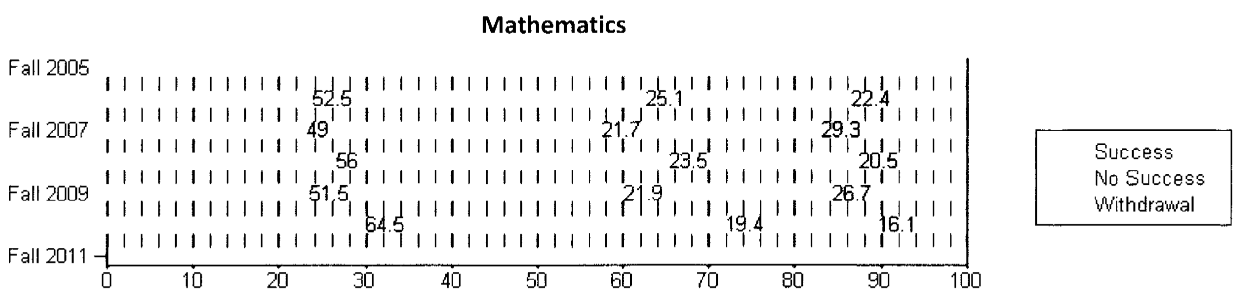


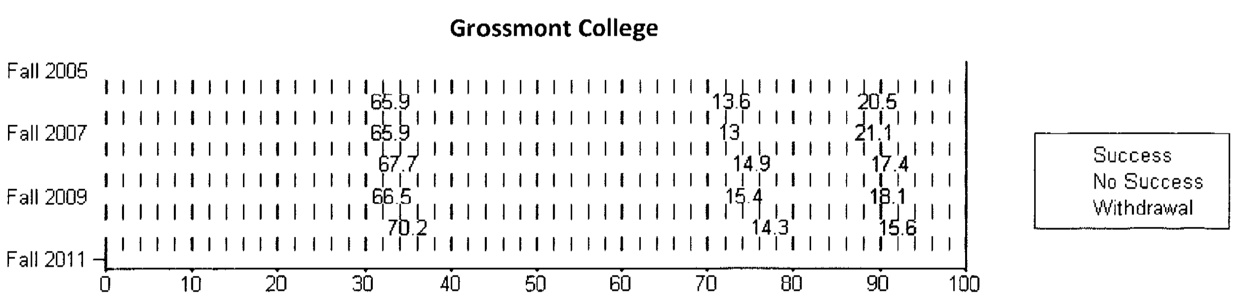
Success, No Success, and Withdrawal by Ethnicity: Black non-Hispanic



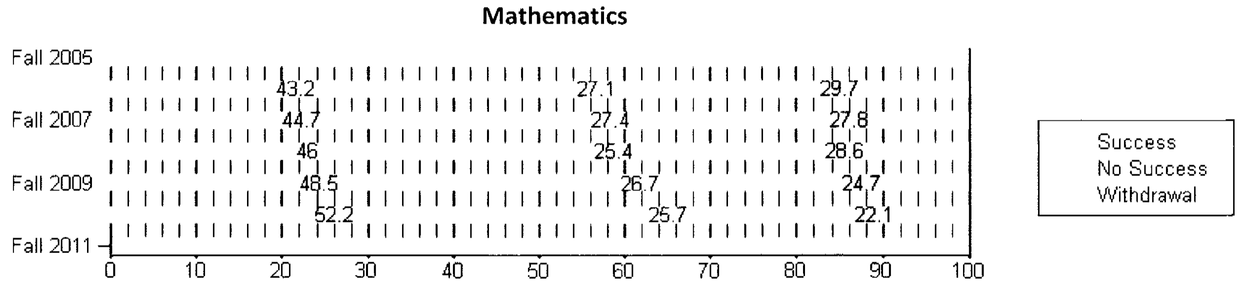


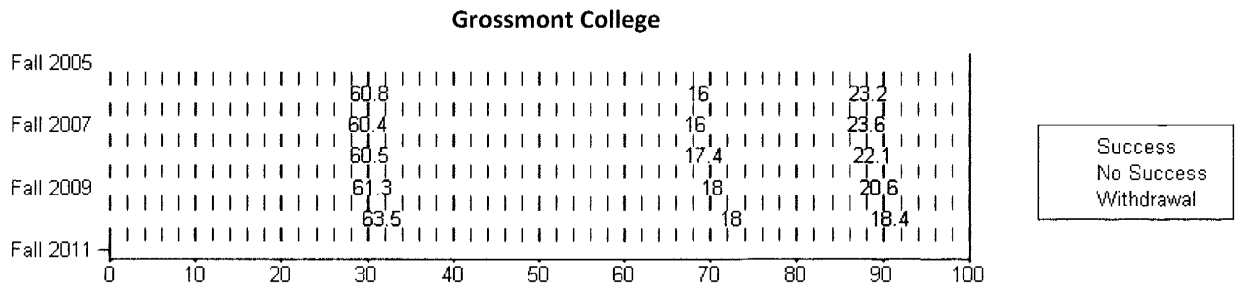
Success, No Success, and Withdrawal by Ethnicity: Filipino



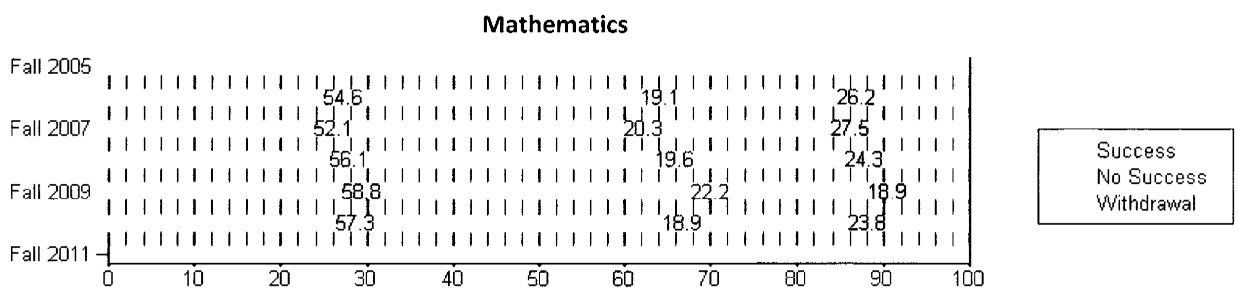


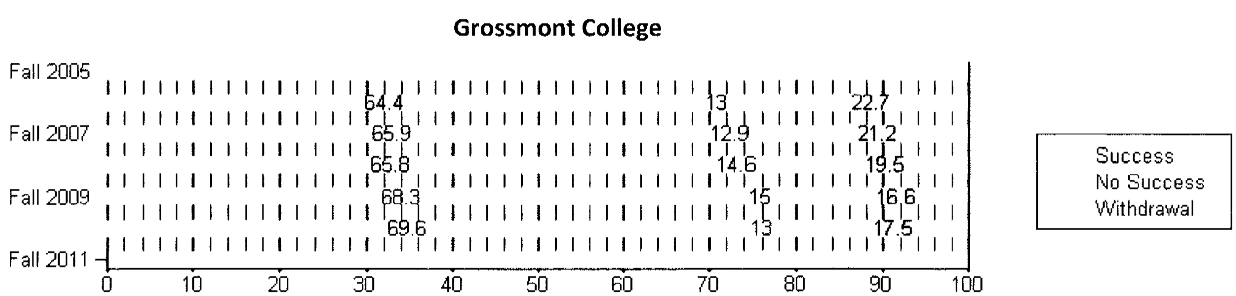
Success, No Success, and Withdrawal by Ethnicity: Hispanic



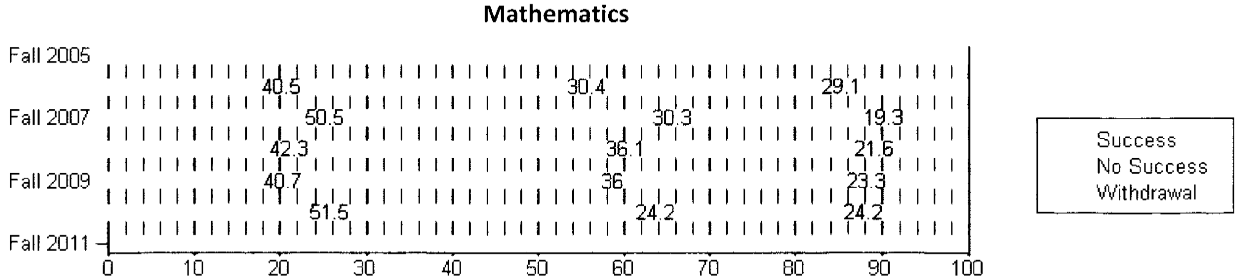


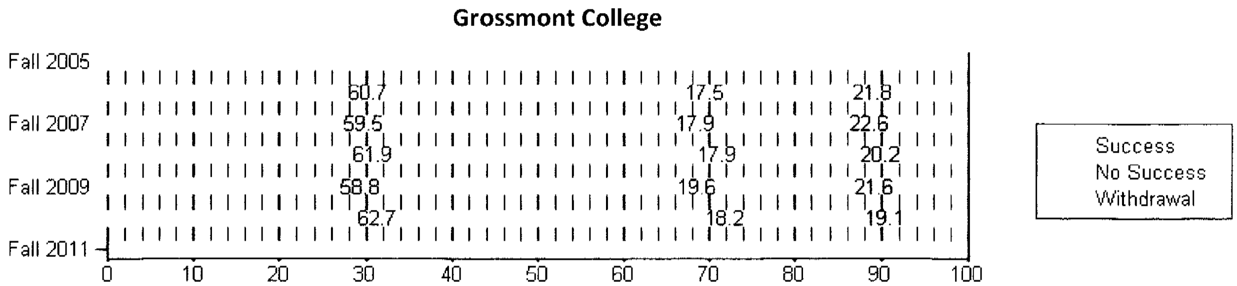
Success, No Success, and Withdrawal by Ethnicity: Not Reported



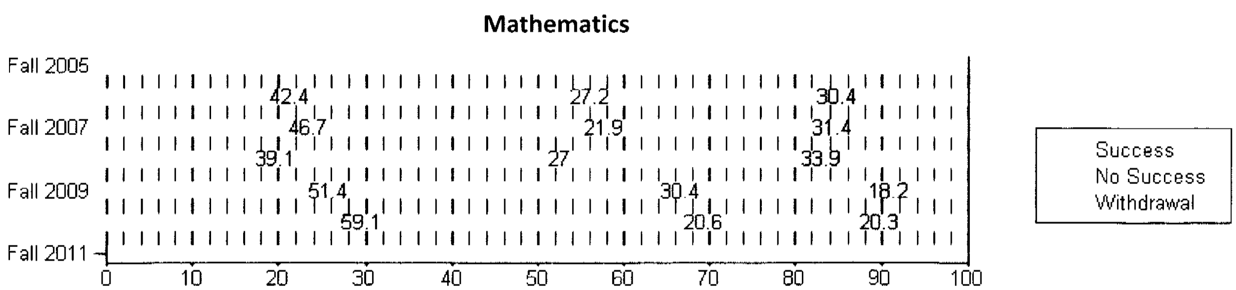


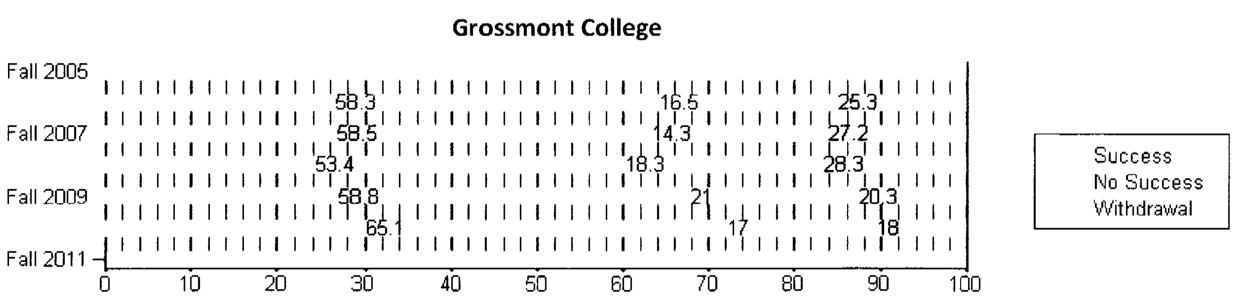
Success, No Success, and Withdrawal by Ethnicity: <u>Pacific Islander</u>



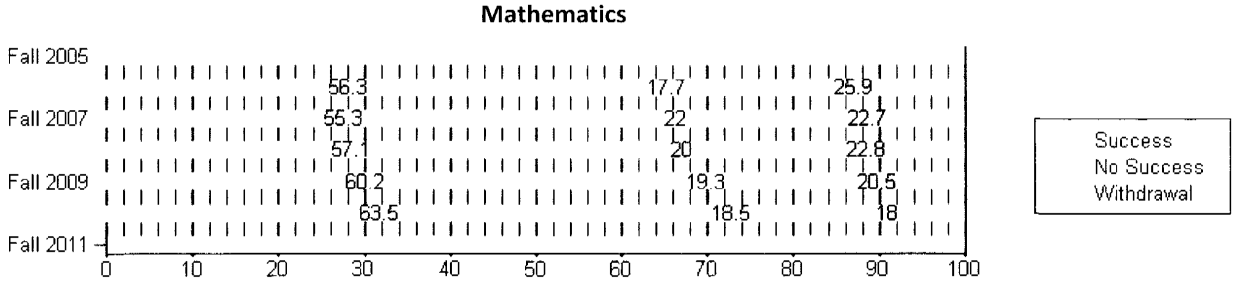


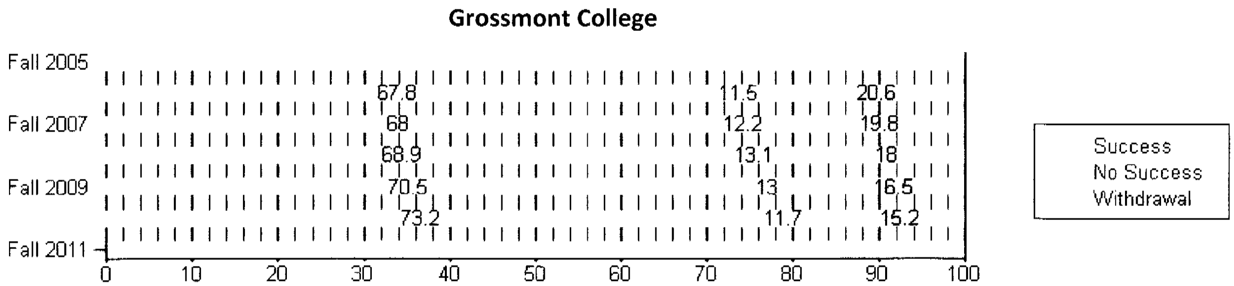
Success, No Success, and Withdrawal by Ethnicity: <u>Two or More Races</u>





Success, No Success, and Withdrawal by Ethnicity: <u>White non-Hispanic</u>





Appendix 14

Fiscal Year FTES Analysis by Program Report

GCCCD
Grossmont College Program Review
Program Data Elements

Math (170100)			03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11
Course #										
MATH 080	MATH 120	MATH177								
MATH 087	MATH 125	MATH 178								
MATH 088	MATH 126	MATH 180								
MATH 088L	MATH 128	MATH 199								
MATH 089	MATH 126	MATH 245								
MATH 090	MATH 150	MATH 280								
MATH 090L	MATH 160	MATH 281								
MATH 097	MATH 160L	MATH 284								
MATH 103	MATH 170	MATH 284								
MATH 110	MATH 175	MATH 299								
MATH 110L	MATH 176	MATH 299B								

WSCH/FTES	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11
Summer - WSCH	5,412.32	4,837.95	4,511.22	4,284.93	4,799.81	4,309.50	5,132.00	144.00
Fall - WSCH	22,447.36	23,207.11	21,890.01	21,867.54	22,494.00	23,372.50	24,766.00	23,238.00
Spring - WSCH	20,377.16	20,291.66	19,368.33	19,946.22	21,259.75	21,768.00	23,228.00	21,611.00
Total WSCH	48,236.84	48,336.72	45,769.56	46,098.69	48,553.56	49,450.00	53,126.00	44,993.00
Total FTES	1,607.89	1,611.22	1,525.65	1,536.62	1,618.45	1,648.33	1,770.87	1,499.77
Unrestricted General Fund Cost	2,182,382	2,278,657	2,527,061	2,891,230	3,011,300	3,140,750	2,825,005	2,742,140
Cost per FTES	1,357.30	1,414.24	1,656.38	1,881.55	1,860.61	1,905.41	1,595.26	1,828.37
Restricted General Fund Cost (Grants, Categorical funds)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix 15

Fiscal Data: Outcomes Profile

APPENDIX 15

Fiscal Data: Outcomes Profile

1. Semester/Year	Fa. 2005	Sp. 2006	Fa. 2006	Sp. 2007	Fa. 2007	Sp. 2008
2. Enrollment	5403/7086	4849/6542	5428/7424	4942/6698	5576/7433	5274/6952
3. Earned WSCH/FTEF	544.61	462.16	533	468.65	540.37	494.67
4. Total FTES	1,525.65		1,536.62		1,618.45	
5. Cost/FTES	1,656.38		1,881.55		1,860.61	
6. Total Cost/Fiscal Year	2,527,061		2,891,230		3,011,300	
7. Total Revenue	6,856,271		6,335,484		7,387,949	
8. Other Revenue	0		0		0	

1. Semester/Year	Fa. 2008	Sp. 2009	Fa. 2009	Sp. 2010	Fa. 2010	Sp. 2011
2. Enrollment	5771/7335	5490/7233	6139/7978	5729/5960	6020/6231	5578/5811
3. Earned WSCH/FTEF	572.49	527.58	655.76	634.29	684.48	643.75
4. Total FTES	1,648.33		1,770.87		1,499.77	
5. Cost/FTES	1,905.41		1,595.26		1,828.37	
6. Total Cost/Fiscal Year	3,140,750		2,825,005		2,742,140	
7. Total Revenue	7,524,346		8,083,721		6,846,195	
8. Other Revenue	0		0		0	