

Santa Rosa Junior College

Program Resource Planning Process

Mathematics 2014

1.1a Mission

The mission of the Department of Mathematics is to increase the knowledge, improve the skills, and enhance the lives of those served by its program. The department accepts its responsibility at all campus locations and in the following obligations:

- Providing a superior program for mathematics majors and students in mathematics-related fields such as engineering and physical sciences.
- Providing a superior program for students in liberal arts fields, which require mathematics as a part of their programs.
- Providing a superior general education program for students pursuing four-year degrees, two-year degrees, and certificates.
- Providing a superior basic skills program for students requiring pre-collegiate mathematical preparation.
- Promoting fair access and opportunities for success to students by eliminating physical and cultural barriers, and by actively recruiting students from all sectors of our community.
- Recruiting, securing and retaining faculty who love teaching, vigorously maintain interest in the field of mathematics and mathematics education, provide leadership in the local, state, and national mathematical communities, actively participate in college governance, and demonstrate sensitivity to the diverse needs and backgrounds of our students.
- Maintaining a high level of instructional quality and integrity, strong academic standards, and respect for learning.
- Fostering an atmosphere for student success by providing students with information to make sound academic decisions, by actively cooperating with the tutorial center, MESA, and Mathematics Computer Lab to help students outside the classroom, and by communicating with the Counseling Department to improve guidance services for all students.
- Providing students with a learning experience in which technology plays an integral part.
- Challenging students to achieve to the maximum of their abilities, and making certain that each understands the responsibility for her/his own academic success.
- Contributing to the cultural life of our community by presenting enrichment opportunities to our students and to community members.
- Providing comprehensive instructional support services such as well-maintained physical facilities, basic supplies, up-to-date technological equipment, adequate support staff (secretaries, computer specialists, student homework graders, lab instructors, and student lab assistants).
- Managing the resources of the department, anticipating future needs, and advocating necessary resources to meet those needs.

1.1b Mission Alignment

The mathematics department's mission is consistent with the district's mission and college initiatives in the areas of

- Focusing on student learning by preparing students for transfer
- Improving students' foundational skills
- Regularly assessing, self-reflecting, adapting, and continuously improving.

1.1c Description

The Mathematics Department serves mathematics majors and students in mathematics-related fields such as engineering and the physical sciences, students in liberal arts fields which require mathematics as a part of their programs, and students needing to satisfy general education requirements in four-year degree, two-year degree, and certificate programs. The Mathematics Department includes a computer lab and tutorial program, both of which are operated by department staff members.

1.1d Hours of Office Operation and Service by Location

The Mathematics Department Office (Shuhaw 1717) is staffed by a full-time administrative assistant between the hours of 7:30 am and 4:00 pm, M-F. The office is open during these times, as well as evening hours during the first two days of each term. The Department Chair's office is located within the department office, and the Department Chair may occasionally extend the hours for which the office is open. There is an almost constant flow of students and faculty into the mathematics office M-Th. Sadly, due to financial cut-backs, the department lost a part-time Administrative Assistant. The department's full-time Administrative Assistant is working very hard to keep up with the needs of the students served by the Mathematics Department and the faculty who teach in the department.

1.2 Program/Unit Context and Environmental Scan

The Mathematics major has not experienced any changes in content or articulation. We are in the process of creating a Mathematics for Transfer major which will replace our current major, and will be the same with the addition of CS 10 as an option since the CSUs count that course for the Mathematics major and the addition of Math 6 which is a common lower division course for math majors.

Due to the decreased number of students being accepted into the CSU and UC systems, the demand for all our classes, particularly the high level classes, has increased.

Due to a policy at SSU which gives enrollment priority to students taking Statistics for the first time, the students who are not able to register for it there are coming to take Statistics at SRJC. We already had a high demand for this course, but it has increased considerably.

Due to low demand for Math 8A and Math 8B, we have phased out that sequence. This is highly unfortunate for the students who need those courses for their majors. Hopefully, as the budget situation improves, we can revisit the idea of offering these courses.

To serve those students seeking an AA degree, and not planning on transferring to a four-year school, the Mathematics Department offers Math 101: Mathematics for the Associate Degree.

The demand for all math courses is extremely high for basic skills students, degree-seeking students, and transfer students. This demand continues to increase as high tech employers and politicians alike push for more students to major in Science, Technology, Engineering, and Math. Not only does our department have too few instructors and too little space, but we continue to fall farther behind in our ability to serve all who are seeking our courses.

2.1a Budget Needs

We have been granted permission to expand the math lab and have been given an additional 1.0 FTEF to do so, but have not been given permanent funding to pay for the extra student lab assistants required to run the expansion. With the current plan, we need an additional \$4500 for the year in our 2361 account. In future years, if we are able to expand further, we will need to increase this number each time.

The graphics budget is severely inadequate for the department's needs and has been overspent every year for at least the last ten years. Although we have taken measures to cut back significantly on using graphics, we are still falling short since our already insufficient graphics budget was cut. When IT decided they would no longer support printers, and suggested all printing be done to the copy machine, our graphics expenditures skyrocketed. We have gone back to using our older printers.

Since IT will no longer support printers, some of which are required to be in compliance with FERPA, (department chair and AA offices), the department must now pay for repairs to printers. While the additional expense has been passed along to the department, the supply budget has not been increased and is now insufficient for needed maintenance costs.

The budget for the 5000 category is adequate with the exception of staff travel. There are no funds allocated for staff travel although Mathematics Department faculty regularly attend Mathematics conferences many times yearly to enhance their professional development and to represent SRJC within various mathematical organizations.

2.1b Budget Requests

| Rank | Location | SP | M | Amount | Brief Rationale |
|------|------------|----|----|------------|---|
| 0001 | Santa Rosa | 01 | 01 | \$4,500.00 | We are asking for a permanent increase to the student worker fund to pay the extra student workers being hired for the new expanded math lab hours. |
| 0002 | ALL | 02 | 01 | \$3,000.00 | We overspend our graphics budget every year and continue to do so in spite of the efforts of the faculty to use electronic documents whenever possible. |
| 0003 | ALL | 04 | 07 | \$2,000.00 | Supplies: To keep printing costs in check for the department, as well as to remain in compliance with FERPA regulations, the department needs to use printers. It has passed the costs of maintaining printers along to the departments, thus the need for additional funds in the supply budget. |
| 0004 | ALL | 02 | 04 | \$7,200.00 | Travel: Our instructors are extremely dedicated to renewing their knowledge base and take on a great amount of expense in order to attend conferences. Many of our instructors are involved in organizing these conferences for faculty from other two-year colleges and yet our travel remains unfunded. Although \$300 per instructor would not cover all travel costs, it would alleviate some of the burden and demonstrate the college's commitment to professional development. |

2.2a Current Classified Positions

| Position | Hr/Wk | Mo/Yr | Job Duties |
|-----------------------------|-------|-------|---|
| Administrative Assistant II | 40.00 | 12.00 | The Administrative Assistant II provides detailed administrative support for the Mathematics Department Chair and math faculty, acts as liaison with other District departments, and provides information and assistance to students who come to the Mathematics Department office. Responsibilities include budget development, tracking and monitoring budgets and expenditures and providing budget assistance to faculty and staff, curriculum support, assisting in the schedule development process, monitoring faculty loads, assisting students and the Department Chair with Prerequisite Challenges and Petitions, and initiating schedule changes. The position requires the ability to perform administrative duties using initiative, confidentiality, independence and problem solving skills with a high level of expertise in office management on a daily basis. Student and faculty contact requires an extensive knowledge of District Policy & Procedure. |

2.2b Current Management/Confidential Positions

| Position | Hr/Wk | Mo/Yr | Job Duties |
|-------------------------------|-------|-------|--|
| Department Chair, Mathematics | 31.20 | 12.00 | Manage a very large and complex multi-campus program. The release time of 77% is not at all sufficient. The Chair duties alone - aside from the required teaching duties - make up a full-time job in this department. |

2.2c Current STNC/Student Worker Positions

| Position | Hr/Wk | Mo/Yr | Job Duties |
|------------------------|-------|-------|--|
| Student Lab Assistants | 80.00 | 12.00 | Assist students and faculty in the Shuhaw Computer Lab. The lab currently is open 80 hours/week, and student lab assistant coverage is needed to supplement the assistance provided by the adjunct lab instructors. Technically these students are now hired by and supervised by an IT employee, but they are still paid through the Math budget. |

2.2d Adequacy and Effectiveness of Staffing

The ratios from our department that have been provided in the core data are:

| Data Element | Value | Change from 2011-12 | District Total | % of District Total |
|---|----------------|---------------------|----------------|---------------------|
| FTE-S : FTE-F | 26.7712 | 5.95% | 28.3270 | 94.51% |
| FTE-AF : FTE-CF | 1.2690 | -5.36% | 1.3077 | 97.04% |
| FTE-F : FTE-SS | 15.1832 | -6.28% | 1.0235 | >1000% |
| FTE-F : FTE-M | 69.2340 | -8.17% | 5.4039 | >1000% |
| FTE-SS : FTE-M | 4.5599 | -2.01% | 5.2796 | 86.37% |
| FTE-ST : FTE-C | 0.0000 | 0.00% | 0.1268 | 0.00% |
| Average Faculty Salary per FTE-F | \$53,763.21 | 4.78% | \$58,570.50 | 91.79% |
| Average Classified Salary per FTE-C | \$53,965.20 | 0.00% | \$44,716.87 | 120.68% |
| Average Management Salary per FTE-M | \$85,906.03 | 2.52% | \$75,957.24 | 113.10% |
| Salary/Benefit costs as a % of total budget | 99.30% | 0.20% | 75.90% | 130.84% |
| Non-Personnel \$ as a % of total budget | 0.70% | -14.80% | 12.71% | 5.47% |
| Restricted Funds as a % of total budget | 0.00% | -100.00% | 11.39% | 0.00% |
| Total Unit Cost per FTE-F | \$70,391.49 | 5.49% | \$170,777.67 | 41.22% |
| Total Unit Cost per FTE-C | \$3,801,317.94 | -1.87% | \$273,966.16 | >1000% |
| Total Unit Cost per FTE-M | \$4,873,484.54 | -3.12% | \$922,860.52 | 528.08% |

| | | | | |
|---|------------|--------|------------|--------|
| Total Unit Cost per FTE-S | \$2,629.38 | -0.43% | \$6,028.78 | 43.61% |
| Total Unit Cost per student served/enrolled | \$298.07 | 6.57% | \$3,658.53 | 8.15% |

Our staff is not adequate in the following areas:

Administrative Assistants:

In previous years, the Mathematics Department office was staffed by an AA III and a half-time AA I. The job duties and demands have not changed, but are now being done by one AA II. The workload and duties are more than that of an AA III, and our current AA II, who is successfully meeting these demanding job requirements, should be upgraded to an AA III and be given compensation appropriate for the work that she does. It would be extremely advantageous, with the pending 10 tenure-track evaluations for 2014-'15, to have an AA III that can take care of the evaluation process within the department.

Student employees - Student Lab Assistants:

The Student Lab Assistants assist with the daily maintenance of the Math Lab. In addition, they tutor students who need help with mathematics, chemistry, physics and engineering courses. The number of students employed varies depending on the number of hours that the student can individually work. In the beginning of the semester it is better to have double shifts of students working in the morning and early afternoon hours since the demand for tutorial help is overwhelming during that part of the semester. The total student hours per week is about 70 not including the double shifts. Some students are needed to help with the setup of the computers in the Math Lab between semesters.

Currently, we have to carefully balance the number of hours worked by FWS students to make sure that we can have the lab open for the entire semester. If we were to lose one of our FWS students, we would have to either overspend our budget or close the lab at the end of the semester when math students really need help.

We are hoping to obtain more permanent funding for both lab rooms in the amount of \$3500-\$7500 per semester depending upon whether enough qualified student lab assistants could be hired, or if it would be necessary to hire classified staff for that purpose.

Student employees - Graders/Readers:

In previous years, the Mathematics Department has had a budget for homework graders/readers. This program was completely eliminated in 2009. The Mathematics Department still feels strongly that daily homework feedback, which is very difficult if not impossible for faculty to provide for all of our students, is vital to student success.

Math Lab Coordinator

This position was removed from the Mathematics Department and is now staffed by IT. The coordinator has been able to meet the needs of the Math Lab this year, but there are concerns that if this IT employee is given too many IT duties outside of the Math Lab, that will no longer be the case. There are many computer demands within the department that could be handled easily and more efficiently by the Math Lab Coordinator if the job description limited the job to the Mathematics Department.

2.2e Classified, STNC, Management Staffing Requests

| Rank | Location | SP | M | Current Title | Proposed Title | Type |
|------|------------|----|----|----------------------------------|-------------------------------------|------------|
| 0001 | Santa Rosa | 02 | 02 | AA II | AA III | Classified |
| 0002 | Santa Rosa | 01 | 01 | Student Lab Assistants (several) | | Student |
| 0003 | ALL | 01 | 01 | | Mathematics Graders (many) | Student |
| 0004 | Santa Rosa | 01 | 01 | | Classified Lab Assistants (several) | Classified |

2.3a Current Contract Faculty Positions

| Position | Description |
|-----------------------------|---|
| Mathematics Instructor (25) | Out of the 25 FT mathematics faculty, 21 are at the Santa Rosa Campus and 4 are at the Petaluma Campus. |

2.3b Full-Time and Part-Time Ratios

| Discipline | FTEF Reg | % Reg Load | FTEF Adj | % Adj Load | Description |
|-------------|-------------|---------------|-------------|---------------|--|
| Mathematics | 21.6800 | 58.0000 | 15.9700 | 42.0000 | <p>Note that 3.75 FTEF was taught by full-time instructors as overload. Some instructors were happy to do this, but others teach overload in order to serve the needs of the department when there are not enough adjunct instructors. Note also that as we have added sections back into our schedule, the percent adjunct load has increased.</p> <p>(The data provided is only from Fall 2013 and does not take into account Spring or Summer.)</p> |

2.3c Faculty Within Retirement Range

Currently, 12 of our 25 full-time mathematics faculty are 55 or over. Several of these people have indicated that they plan to retire soon. In order to make sure that we can hire highly qualified individuals, it is vital that we replace these positions as they are vacated. In recent years, we have tended to lose qualified applicants to other institutions prior to holding our interviews. This tends to make it more difficult to hire more than 2 or 3 faculty at one time.

If these positions are not filled, it is highly likely that we will find ourselves cancelling math classes due to lack of instructors. Since the need for math classes is so great, that would be an extreme disservice to students trying to reach their educational goals.

2.3d Analysis of Faculty Staffing Needs and Rationale to Support Requests

We are requesting that, in the upcoming year all retirements be replaced immediately. At present, I am aware of one anticipated retirement in the coming year, and that vacancy will be at the Santa Rosa campus. There is a very good chance of one additional retirement, but that has not been stated.

While we can probably continue to grow our course offerings and fill all courses, and would appreciate having additional full-time faculty to help teach and participate in departmental and institutional business, we will need to be creative finding office locations for any additional full-time positions beyond retirement replacements.

We have included additional requests beyond the three mentioned above on the 2.3e spreadsheet because it asked for the anticipated requests for the next 3 years.

Historically, we have had a difficult time staffing our classes. This is due to a number of reasons which are ongoing.

- Inadequate number of full-time instructors
- Inadequate number of qualified adjunct instructors
- Several full-time mathematics faculty receiving reassigned time for various reasons
- Several recent (and anticipated) sabbaticals in the mathematics department
- Current adjunct instructors taking full-time jobs elsewhere or retiring

It is important that we have enough full-time faculty so that we have the stability to continue to offer as many math classes as we are allowed. The incredible growth in STEM disciplines has required us to add sections of higher level courses, such as Math 4 & Math 1C. These courses are not suitable for adjunct instructors because they require a lot of time and collaboration with colleagues. We expect the need for these courses to continue increasing as the economy improves and the high tech sector grows, both locally and nationally.

2.3e Faculty Staffing Requests

| Rank | Location | SP | M | Discipline | SLO Assessment Rationale |
|-------------|-----------------|-----------|----------|-------------------|---------------------------------|
| 0001 | Santa Rosa | 02 | 01 | Mathematics | |
| 0002 | Santa Rosa | 02 | 01 | Mathematics | |
| 0003 | Santa Rosa | 02 | 01 | Mathematics | |

2.4b Rational for Instructional and Non-Instructional Equipment, Technology, and Software

With the bond money running out, IT will be unable to continue to fund Mathematica, a computer program we use in our calculus courses. A three year renewal will cost about \$11,000.

With increased section offerings in the Math department we now use room 1765 more often and for a wider variety of courses. We really need a projector and copy stand in that room, which I believe requires the installation of white boards. We asked for this early fall '13 semester and were given the quote of \$21,000, but told this had to be in the PRPP.

Due to software requirements, including My Math Lab for on-line course work, and word processing preferences, the majority of the Math Department prefers Macintosh computers over pc's. For many years we were able to have macs, and to keep them current. Now, IT will only supply refurbished pc's, except on a special case-by-case basis. IT is sometimes able to find refurbished Macs for these "special" requests, but the department is required to pay the difference in cost over a refurbished pc. While we would prefer to have up-to-date Macs, we are willing to settle for refurbished, until such a time that getting new Macs is again an option. Estimating the difference in refurbished machines at \$160/each, and assuming 10 requests for such, that is a total of \$1600.

If we are able to acquire additional office space for our adjunct (or new FT faculty), the department may be required to pay for new phones at a cost of approximately \$250 each. Assuming (hoping!) two new offices, that's \$500. (This year we actually paid \$507.30 for 2 phones in adjunct offices in Bussman Hall.)

2.4c Instructional Equipment and Software Requests

| Rank | Location | SP | M | Item Description | Qty | Cost Each | Total Cost | Requestor | Room/Space | Contact |
|------|------------|----|----|--------------------------------------|-----|-------------|-------------|------------------------|---|---------------|
| 0001 | ALL | 02 | 01 | Mathematica Software License | 1 | \$11,000.00 | \$11,000.00 | Mathematics Department | all math faculty offices and classrooms | Debra Miller |
| 0002 | Santa Rosa | 04 | 01 | Media enhanced upgrades to room 1765 | 1 | \$21,000.00 | \$21,000.00 | Debbie Albers | 1765 | Debbie Albers |
| 0003 | ALL | 04 | 06 | Office computer updates/replacements | 10 | \$160.00 | \$1,600.00 | | | |
| 0004 | Santa Rosa | 04 | 07 | Telephones in adjunct offices | 2 | \$250.00 | \$500.00 | | TBD | |

2.4d Non-Instructional Equipment, Software, and Technology Requests

| Rank | Location | SP | M | Item Description | Qty | Cost Each | Total Cost | Requestor | Room/Space | Contact |
|------|----------|----|---|------------------|-----|-----------|------------|-----------|------------|---------|
|------|----------|----|---|------------------|-----|-----------|------------|-----------|------------|---------|

2.5a Minor Facilities Requests

| Rank | Location | SP | M | Time Frame | Building | Room Number | Est. Cost | Description |
|------|------------|----|----|------------|----------|-----------------|-----------|---|
| 0001 | Santa Rosa | 04 | 07 | Urgent | Shuhaw | entire building | \$0.00 | Ceiling tiles are stained and collapsing, bring rat dropping with them. Tiles are in dire need of replacement. |
| 0002 | Santa Rosa | 04 | 07 | Urgent | Shuhaw | sewage system | \$0.00 | The sewage system occasionally backs up into the hallway next to classroom 1723 and offices 1722, 1724, 1726, and 1728. The last time, the sewage backed up enough to reach all four offices. This an unacceptable, unsanitary situation that must be fixed. |
| 0003 | Santa Rosa | 02 | 01 | Urgent | Shuhaw | | \$0.00 | New offices for Mathematics Instructors |
| 0004 | Santa Rosa | 04 | 07 | Urgent | Shuhaw | 1717 | \$0.00 | The door to the Mathematics Department office is a fire door and needs to have a magnetic fire door closer installed to comply with fire codes. My understanding is that this is a potential liability for SRJC if not addressed. |
| 0005 | Santa Rosa | 04 | 07 | Urgent | Shuhaw | entire building | \$0.00 | The entire building needs to be re-keyed due to the number of keys that have been distributed whose whereabouts are now unknown. This is a safety concern that was brought to light by the rapist that had set up camp in a closet in Shuhaw for an unknown length of time. |
| 0006 | Santa Rosa | 04 | 07 | 1 Year | Shuhaw | | \$0.00 | Update heating and air conditioning system. |
| 0008 | Santa Rosa | 02 | 01 | 2-3 Yr | Shuhaw | | \$0.00 | New classrooms for Mathematics. Shuhaw is being held together by duct tape these days. Our sewage system needs to be fixed and our HVAC systems are constantly requiring attention. The Math Department needs a new building. |

2.5b Analysis of Existing Facilities

- The mathematics part of Shuhaw Hall has difficulty maintaining the proper temperature uniformly throughout the building.
- In severe weather, the roof tends to leak and ceiling tiles are collapsing. Since there are rats in the crawl space, rat dropping come into the building when tiles collapse.
- There are an unknown number of former instructors who never returned their keys. Since we have no idea what they have done with the keys, Shuhaw is rather insecure.

It might be time to consider building a less problematic facility.

3.1 Develop Financial Resources

3.2 Serve our Diverse Communities

For privacy concerns, I will not comment on the Math Department's faculty and staff diversity in regards to their ethnicities, socio-economic backgrounds, disabilities, sexual orientation, age, and other personal qualities. I can simply say that we are a much more diverse faculty than we were 10 years ago.

In addition, I can assure the reader of this document that we hire and maintain staff and faculty who are extremely sensitive to and knowledgeable of the diverse needs and backgrounds of the students we serve.

The question of how to best serve the many needs of our diverse student population is always of major importance at any interview we conduct. When we recruit for positions in mathematics, we work closely with Human Resources in order to broaden our recruitment and in order to ask questions, both on the written application and at the interview, which will allow us to hire instructors dedicated to the various learning styles and backgrounds of the students in our classes.

Our department has always maintained a very close working relationship with DRD. Not only are we careful to follow all requirements as listed by DRD for each individual student, our faculty work closely with DRD specialists so that each DRD student is accommodated the best way possible.

We know that one model does not serve all when it comes to mathematics instruction, and our instructors consistently work towards shaping our teaching in ways that are best for each of the individuals in the classroom.

We realize that in K-12 education, teachers have been given fewer and fewer individual pedagogical choices in recent years – so much of what and how they teach is now dictated at the statewide level. This is upsetting and rather ironic because how, then, can they individualize their teaching methods in order to help out a wide variety of learning styles in their classrooms?

Fortunately, our mathematics department has been an advocate of not dictating pedagogy. Therefore, each instructor has the freedom – and the responsibility – of striving to best meet the educational needs of each of his or her students.

3.3 Cultivate a Healthy Organization

The Mathematics Department strongly supports the professional development of its classified staff. Staff are encouraged to attend PDA days and other activities promoted by the Staff Development Resource Center and to take seminars, workshops, and instructional courses that enhance professional development.

Faculty in the SRJC Mathematics Department are extremely active in state-wide and national Mathematics organizations, such as CMC3, MAA and AMATYC. Many of the faculty attend colloquia at Sonoma State University and Humboldt State University. We have faculty that regularly serve on committees grading AP Calculus and AP Statistics exams for the entire country. The SRJC Math Department is very well known statewide for its level of involvement in Professional growth activities and organizations.

3.4 Safety and Emergency Preparedness

Ying Lin is the trained and certified safety leader for the Mathematics Department and Shuhaw Hall.

3.5 Establish a Culture of Sustainability

Most of our instructors have become virtually paperless in class (except for tests of course) and many of them also use online homework systems to reduce paper use.

4.1a Course Student Learning Outcomes Assessment

ASSESSMENT PLAN:

Every sixth year, beginning with the 2010/2011 academic year, the Mathematics Department will assess all mathematics courses and the mathematics major.

| Course | SLO #s | Participating faculty | Semester Initiated | Semester Completed | Year of Next Assessment |
|--------|--------|--|--------------------|--------------------|-------------------------|
| 10 | All | Munton | Spring 2014 | Fall 2014 | 2019-20 |
| 101 | All | Falbo | Spring 2014 | Fall 2014 | 2019-20 |
| 15 | All | Clark, DoVan, Jones | Spring 2014 | Fall 2014 | 2019-20 |
| 150A | All | Ruud, Albers, Kwon | Spring 2014 | Fall 2014 | 2019-20 |
| 150B | All | Bach, DoVa, Albers Wheeler, Lin | Spring 2014 | Fall 2014 | 2019-20 |
| 151 | All | DoVan, Blackburn, Gorgievska, Gooch, Nieto | Spring 2014 | Fall 2014 | 2019-20 |
| 155 | All | Valenzuela, Kwon, Blackburn, Shell, Martin | Spring 2014 | Fall 2014 | 2019-20 |
| 16 | All | Bunas, Ferguson | Spring 2014 | Fall 2014 | 2019-20 |
| 1A | All | Bach, Kwon, Brown | Spring 2014 | Fall 2014 | 2019-20 |

| | | | | | |
|-------------------------|-----|---------------------------------|-------------|-------------|-----------|
| 1B | All | Kwon, Bunas, Nieto, Martin | Spring 2014 | Fall 2014 | 2019-20 |
| 1C | All | Ferguson, Martin, Sturr | Spring 2014 | Fall 2014 | 2019-20 |
| 2 | All | Gooch | Spring 2014 | Fall 2014 | 2019-20 |
| 25 | All | Kwon, Jones, Eurgubian | Spring 2014 | Fall 2014 | 2019-20 |
| 27 | All | Bach, Ohlsen, Gorgievska, Gooch | Spring 2014 | Fall 2014 | 2019-20 |
| 4 | All | Lin | Spring 2014 | Fall 2014 | 2019-20 |
| 5 | All | Wheeler, Sturr | Spring 2014 | Fall 2014 | 2019-20 |
| 58 | All | Utter | Spring 2014 | Fall 2014 | 2019-20 |
| 9 | All | Martin, Gooch | Spring 2014 | Fall 2014 | 2019-20 |
| 49 | All | Gooch | Fall 2011 | Spring 2012 | 2017 – 18 |
| 70 | All | Wheeler | Spring 2014 | Fall 2014 | 2019-20 |
| 71 | All | Wheeler | Spring 2014 | Fall 2014 | 2019-20 |
| 770 | All | Albers, Wheeler | Fall 2014 | Fall 2014 | 2019-20 |
| Math for Transfer Major | All | | Spring 2014 | Fall 2014 | 2019-20 |

4.1b Program Student Learning Outcomes Assessment

Program Assessment Plan

In the spring of 2014, SLOs for all math courses were assessed. Once all of the individual courses SLO assessments were in, the Mathematics Major was assessed based on the individual assessment outcomes of the courses.

The Student Learning Outcomes in the Mathematics Major relate to the individual courses within the major according to the chart below.

| SLOs | CORE COURSES | | | | PICK ONE | Math 2 | Math 4 |
|--|--------------|---------|---------|--------|----------|--------|--------|
| | Math 1A | Math 1B | Math 1C | Math 5 | | | |
| Demonstrate the ability to use symbolic, graphical, and numerical representations of mathematical ideas and to communicate mathematical results in a clear, organized and contextually accurate manner | X | X | X | X | | X | X |
| Perform advanced operations with functions of one or more variables, including algebraic, transcendental, and vector-valued; understand the characteristics and graphs of functions; and apply this knowledge to modeling problems | X | X | X | | | X | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Apply mathematical techniques including solving equations and inequalities, solving systems of equations and inequalities, differentiation, and integration, to problems that arise in the real world | X | X | X | X | X | |
| Use and apply conic sections, polar graphs, parametric equations, vectors, complex numbers, sequences, and series | | X | X | | | |
| Engage in logical and critical thinking in mathematics | X | X | X | X | X | X |

Most Recent Major Assessment Information

In the spring of 2014, all major courses were assessed. For the courses that did not achieve success, the action deemed appropriate was at the level of the instructor. No changes to the major are indicated at this time.

4.1c Student Learning Outcomes Reporting

| Type | Name | Student Assessment Implemented | Assessment Results Analyzed | Change Implemented |
|-------------------|-------------|--------------------------------|-----------------------------|--------------------|
| Course | Math 1A | Spring 2014 | Spring 2014 | N/A |
| Course | Math 1B | Spring 2014 | Spring 2014 | N/A |
| Course | Math 1C | Spring 2014 | Spring 2014 | N/A |
| Course | Math 2 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 4 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 5 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 9 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 10 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 15 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 16 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 25 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 27 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 49 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 58 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 70 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 71 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 101 | Spring 2014 | Spring 2014 | N/A |
| Course | Math150A | Spring 2014 | Spring 2014 | N/A |
| Course | Math 150B | Spring 2014 | Spring 2014 | N/A |
| Course | Math 151 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 155 | Spring 2014 | Spring 2014 | N/A |
| Course | Math 770 | Fall 2010 | Fall 2010 | N/A |
| Certificate/Major | Mathematics | Spring 2014 | Spring 2014 | N/A |

4.2a Key Courses or Services that address Institutional Outcomes

| Course/Service | 1a | 1b | 1c | 2a | 2b | 2c | 2d | 3a | 3b | 4a | 4b | 5 | 6a | 6b | 6c | 7 |
|----------------|----|----|----|----|----|----|----|----|----|----|----|---|----|----|----|---|
| Math 10 | X | X | X | X | | | | X | X | X | X | X | | | X | X |
| Math 101 | X | X | X | X | | | | X | X | X | X | X | | | X | X |
| Math 15 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 150A | X | X | X | X | | | | X | X | X | X | X | | | | X |

| | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|--|--|--|---|---|---|---|---|--|--|--|---|
| Math 150B | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 151 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 155 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 16 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 1A | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 1B | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 1C | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 2 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 25 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 27 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 2A | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 2B | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 4 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 5 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 58 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 6 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 70 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 71 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 770 | X | X | X | X | | | | X | X | X | X | X | | | | X |
| Math 9 | X | X | X | X | | | | X | X | X | X | X | | | | X |

4.2b Narrative (Optional)

5.0 Performance Measures

The Mathematics Department of Santa Rosa Junior College has as its goal to serve the students efficiently and at the same time keep mathematics education accessible to its students. As a faculty, we work hard to be available to our students, try to keep up on the latest innovations in mathematics as well as that which is used in the teaching of mathematics. I have never worked with a more dedicated faculty anywhere else.

5.1 Effective Class Schedule: Course Offerings, Times, Locations, and Delivery Modes (annual)

We offer a wide variety of times and days for our sections, including weekends and hybrid courses. We offer courses from Elementary Algebra through second year calculus on the Santa Rosa Campus and we offer all courses through first year calculus on the Petaluma Campus. Sadly, because of the lack of chemistry, physics and engineering courses offered at the Petaluma Campus, we are unable to offer second-year courses on the Petaluma Campus since most of those students who would take second-year mathematics courses are forced to take their chemistry, physics and engineering courses on the Santa Rosa Campus thus making the second-year mathematics courses inconvenient to take on the Petaluma Campus.

We are now trying to offer more advanced courses in our evening program. It has been a success and at this time, we are seeing huge increases in the enrollment of these more advanced mathematics courses. We are hoping that as the Petaluma Campus grows, we will be able to start offering more advanced courses there as well.

We currently are unable to meet the demand for Math 155, Math 15, Math 1A and Math 1B due to a lack of Mathematics faculty. With the decreasing unemployment in Sonoma County we have seen a corresponding decrease in applicants for our adjunct pool. Furthermore, we anticipate 3 - 5 retirements by spring 2015, so we will have to work very hard to maintain the level of services we currently offer, not to mention meet the increasing demand for Mathematics courses. We hope to have approval for some steady, sustained

hiring of full-time faculty in the coming years which will allow us to better meet the needs of the students.

Student Headcount:

Santa Rosa Campus

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 1135 | 5301 | 5677 | 1183 | 5501 | 5556 | 956 | 5262 | 536 |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 213 | 1102 | 986 | 186 | 1083 | 1025 | 177 | 1120 | 97 |

5.2a Enrollment Efficiency

Santa Rosa Campus

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|--------|--------|--------|--------|-------|--------|--------|--------|
| Mathematics | 99.6% | 118.6% | 120.1% | 109.9% | 120.8% | 124.5 | 109.1% | 122.3% | 123.4% |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|--------|--------|-------|--------|--------|--------|--------|--------|
| Mathematics | 95.1% | 109.3% | 113.6% | 83.0% | 114.0% | 118.1% | 105.4% | 121.2% | 119.6% |

The enrollment efficiency is both an indication of healthy enrollments and overcrowded classes. Our instructors have taken on more students recently in order to accommodate the increased student populations. This has been a hardship on both our students and our instructors. We need to increase the number of sections of mathematics courses offered so that students can progress in a timely manner. It is also clear that we need to hire more full-time instructors and obtain more classrooms to accommodate our future needs.

5.2b Average Class Size

Nearly all mathematics courses at SRJC have a class enrollment limit of 28 with a 6-student wait list which can generally be accommodated into the class. There are usually more students trying to add than we can accommodate in our classrooms which each hold about 34 students. Some of the numbers below are less than 34 due to attrition, but we begin each semester with nearly every class completely full and a lot of classes with students on the floor. We need to offer more classes and thus need more full-time instructors to do so.

Santa Rosa Campus

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 27.9 | 33.2 | 33.4 | 30.8 | 33.9 | 34.5 | 30.6 | 34.3 | 34. |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

| | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|-----|
| Mathematics | 26.6 | 30.6 | 31.8 | 23.3 | 31.9 | 33.1 | 29.5 | 33.9 | 33. |
|-------------|------|------|------|------|------|------|------|------|-----|

5.3 Instructional Productivity

Santa Rosa Campus

| Mathematics | | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | FTEF | 96.12 | 475.16 | 512.73 | 100.15 | 491.57 | 510.08 | 87.35 | 488.29 | 502.73 |
| | FTEF | 6.44 | 27.48 | 29.82 | 6.07 | 27.62 | 28.34 | 5.39 | 27.93 | 28.34 |
| | Ratio | 14.91 | 17.29 | 17.19 | 16.49 | 17.80 | 18.00 | 16.22 | 17.48 | 17.74 |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Mathematics | | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | FTEF | 29.79 | 144.80 | 126.97 | 26.25 | 144.24 | 133.61 | 25.17 | 149.97 | 127.09 |
| | FTEF | 2.12 | 9.24 | 7.74 | 2.12 | 8.73 | 7.75 | 1.64 | 9.54 | 7.36 |
| | Ratio | 14.07 | 15.68 | 16.39 | 12.40 | 16.52 | 17.24 | 15.33 | 15.72 | 17.26 |

The goal for the college is 18.5 which is equivalent to having classes with about 37 students. Since our classrooms can only accommodate up to about 34 students, it is impossible for us to meet the goal of the district without violating fire codes.

We believe that the nature of the mathematics discipline should allow our department to fall below the college-wide goal in this area. Students often find mathematics to be a challenging subject, and when students fail a mathematics course, they are often inclined to drop out of school completely. In order to maintain or increase student success, we should maintain or even decrease class size.

5.4 Curriculum Currency

All curriculum reviews are current. The three courses last reviewed in 2009 are currently in the review process.

| | |
|-----------|------------|
| MATH 10 | 4/20/2009 |
| MATH 101 | 11/14/2011 |
| MATH 15 | 11/25/2013 |
| MATH 150A | 4/8/2013 |
| MATH 150B | 4/8/2013 |
| MATH 151 | 4/8/2013 |
| MATH 155 | 5/21/2010 |
| MATH 16 | 3/20/2014 |
| MATH 1A | 4/14/2014 |
| MATH 1B | 4/14/2014 |
| MATH 1C | 10/28/2013 |
| MATH 2 | 10/28/2013 |
| MATH 25 | 4/8/2013 |
| MATH 27 | 4/8/2013 |
| MATH 4 | 10/1/2012 |

| | |
|----------|------------|
| MATH 49 | 9/23/2013 |
| MATH 5 | 9/14/2009 |
| MATH 58 | 11/4/2013 |
| MATH 6 | 10/30/2012 |
| MATH 70 | 4/8/2013 |
| MATH 71 | 4/8/2013 |
| MATH 770 | 4/20/2009 |
| MATH 8A | Inactive |
| MATH 8B | Inactive |
| MATH 9 | 3/11/2014 |

5.5 Successful Program Completion

Mathematics Degree

| | | | | | |
|--------------------------|--------|-------|-------|-------|-------|
| Associate of Arts Degree | 08--09 | 09-10 | 10-11 | 11-12 | 12-13 |
| Mathematics | 11 | 22 | 22 | 18 | 31 |

We seem to have an increase in the number of Mathematics degrees awarded in recent years. This may be due to the push at SRJC for having a way to assess "completion" and may also be due to the UCs and CSUs accepting fewer students.

Support for Non-Math Majors

Virtually all of our students take mathematics courses with the goal of completing a certificate, associate degree, or the requirements for transfer to a four-year school. For many students, mathematics is the most challenging subject they will face. And yet the mathematics course success rate (approximately 67%) is only slightly lower than the District average (approximately 74%).

The mathematics department encourages student success by

- Promoting fair access and opportunities for students to take our courses
- Recruiting, securing and retaining faculty who love teaching
- Maintaining a high level of instructional quality and integrity
- Actively cooperating with the Tutorial Center, MESA, Mathematics Computer Lab, DRD, and the Counseling Department to help students outside the classroom
- Challenging students to achieve to the maximum of their abilities, and making certain that each understands the responsibility for her/his own academic success.
- Contributing to the cultural life of our community by presenting enrichment opportunities to our students and to community members.
- Providing comprehensive instructional support services such as well-maintained physical facilities, basic supplies, up-to-date technological equipment, adequate support staff (secretaries, computer specialists, student homework graders, lab instructors, and student lab assistants).

Currently we are focusing on our Basic Skills level students and looking into ways we can increase student success among this group. We have developed a new course, MATH 101, Mathematics for the Associate Degree, that is an alternative to MATH 155 for students who seek an Associate Degree but do not plan on transferring. This may be extremely important for our nursing students and students in other vocational programs. Our department has been extremely active in the Basic Skills work of the college.

Core to student success is good study habits. The best-proven method of motivating students to do daily homework is to collect and grade homework on a daily basis. This is impossible without student homework graders. We have had student graders in the past, but lost the funding due to budget cuts. The college should make it a priority to promote practices, like the grader program, that will increase student success.

5.6 Student Success

Retention

Santa Rosa Campus

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 72.8% | 68.7% | 70.6% | 74.1% | 70.4% | 69.5% | 78.9% | 70.7% | 68.2% |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 84.7% | 72.9% | 76.6% | 74.2% | 73.1% | 75.8% | 85.8% | 78.6% | 73.1% |

Successful Course Completion

Santa Rosa Campus

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 66.9% | 59.7% | 62.0% | 68.2% | 61.7% | 60.8% | 71.5% | 61.4% | 59.1% |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 78.5% | 65.0% | 68.5% | 64.5% | 66.1% | 67.3% | 77.8% | 69.8% | 62.6% |

GPA

Santa Rosa Campus

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 2.29 | 2.20 | 2.26 | 2.32 | 2.22 | 2.21 | 2.40 | 2.21 | 2.2 |

Petaluma Campus (Includes Rohnert Park and Sonoma)

| Discipline | X2010 | F2010 | S2011 | X2011 | F2011 | S2012 | X2012 | F2012 | S2013 |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Mathematics | 2.61 | 2.35 | 2.45 | 2.33 | 2.45 | 2.30 | 2.73 | 2.51 | 2.3 |

It is no secret that mathematics is difficult for many students. There are a variety of reasons for that and we, as mathematics instructors, strive to find ways to help our students succeed. We cannot, however, lower our standards. It is our responsibility to ensure that students who pass our classes are prepared for the subsequent classes. Otherwise, the problem compounds itself. This situation is not unique to SRJC.

Having student graders to give daily feedback on homework is one practice that can improve student success. It seems that the small cost of hiring student graders would be greatly offset by the increase in the student success rates. If fewer students are repeating our courses, more students will be served.

The student equity data did not show any major concerns with student equity within Mathematics. While a certain sub-group may have performed lower than the average in one semester, the opposite can be found true in another semester. The only area that showed consistently lower success in mathematics was the group of Basic Skills English students. This makes sense due to the necessity of good English skills to be successful in any college course.

5.7 Student Access

The students who we served by ethnicity are:

| Mathematics | Ethnicity | 2010-11 | Percent | 2011-12 | Percent | 2012-13 | Percent | 2013-14 |
|-------------|------------------------|--------------|---------------|--------------|---------------|--------------|---------------|----------|
| | White | 6821 | 55.0% | 6811 | 54.8% | 6323 | 52.8% | |
| | Asian | 662 | 5.3% | 636 | 5.1% | 608 | 5.1% | |
| | Black | 340 | 2.7% | 354 | 2.9% | 304 | 2.5% | |
| | Hispanic | 2138 | 17.2% | 2422 | 19.5% | 2561 | 21.4% | |
| | Native American | 108 | 0.9% | 117 | 0.9% | 85 | 0.7% | |
| | Pacific Islander | 69 | 0.6% | 53 | 0.4% | 49 | 0.4% | |
| | Filipino | 115 | 0.9% | 143 | 1.2% | 119 | 1.0% | |
| | Other Non-White | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | |
| | Decline to state | 2146 | 17.3% | 1884 | 15.2% | 1918 | 16.0% | |
| | ALL Ethnicities | 12399 | 100.0% | 12420 | 100.0% | 11967 | 100.0% | 1 |

The students who we served by gender are:

| Mathematics | Gender | 2010-11 | Percent | 2011-12 | Percent | 2012-13 | Percent | 2013-14 |
|-------------|--------------------|--------------|---------------|--------------|---------------|--------------|---------------|----------|
| | Male | 6359 | 51.3% | 6402 | 51.5% | 6015 | 50.3% | |
| | Female | 5876 | 47.4% | 5845 | 47.1% | 5794 | 48.4% | |
| | Unknown | 164 | 1.3% | 173 | 1.4% | 158 | 1.3% | |
| | ALL Genders | 12399 | 100.0% | 12420 | 100.0% | 11967 | 100.0% | 1 |

The students we served by age are:

| Mathematics | Age Range | 2010-11 | Percent | 2011-12 | Percent | 2012-13 | Percent | 2013-14 |
|-------------|-----------------|--------------|---------------|--------------|---------------|--------------|---------------|----------|
| | 0 thru 18 | 2210 | 17.9% | 2104 | 17.0% | 1844 | 15.5% | |
| | 19 and 20 | 3992 | 32.3% | 3920 | 31.7% | 3869 | 32.4% | |
| | 21 thru 25 | 3485 | 28.2% | 3635 | 29.4% | 3595 | 30.1% | |
| | 26 thru 30 | 1235 | 10.0% | 1220 | 9.9% | 1207 | 10.1% | |
| | 31 thru 35 | 523 | 4.2% | 555 | 4.5% | 530 | 4.4% | |
| | 36 thru 40 | 309 | 2.5% | 356 | 2.9% | 317 | 2.7% | |
| | 41 thru 45 | 211 | 1.7% | 238 | 1.9% | 230 | 1.9% | |
| | 46 thru 50 | 185 | 1.5% | 165 | 1.3% | 171 | 1.4% | |
| | 51 thru 60 | 216 | 1.7% | 183 | 1.5% | 170 | 1.4% | |
| | 61 plus | 33 | 0.3% | 44 | 0.4% | 34 | 0.3% | |
| | ALL Ages | 12366 | 100.0% | 12376 | 100.0% | 11933 | 100.0% | 1 |

Our service to the various groups of students is right in line with that which would be expected. We do our best to provide a positive learning environment for all students.

It appears that we serve male and female students equally and that we have a higher than average served in the cross gender category.

We have more Hispanic students than the average for the county taking mathematics courses. I think the work of Darci Rosales and the MESA center have contributed to this very positively.

5.8 Curriculum Offered Within Reasonable Time Frame

We offer all of our courses every semester, generally with multiple sections of each. We try to have sections of each class available during both day and evening hours. We also offer our two highest demand courses, Math 155 and Math 15, in a weekend college format each semester.

| | |
|----------|-------------------|
| Location | SANTA ROSA CAMPUS |
|----------|-------------------|

Updated 08/2

| Sum of Enrollment | | | | Semester | | | | |
|--|-------------|-------------|-----------|----------|---------|---------|---------|--------|
| Cluster | Department | Discipline | Course | 2010 SU | 2010 FA | 2011 SP | 2011 SU | 2011 F |
| Science, Technology, Engineering & Mathematics | Mathematics | Mathematics | MATH 10 | 24 | 77 | 76 | 26 | |
| | | | MATH 101 | 0 | 0 | 0 | 0 | |
| | | | MATH 15 | 183 | 586 | 659 | 176 | |
| | | | MATH 150A | 63 | 457 | 386 | 57 | |
| | | | MATH 150B | 53 | 206 | 258 | 62 | |
| | | | MATH 151 | 63 | 307 | 326 | 69 | |
| | | | MATH 155 | 146 | 668 | 716 | 150 | |
| | | | MATH 16 | 0 | 30 | 39 | 0 | |
| | | | MATH 1A | 69 | 226 | 240 | 80 | |
| | | | MATH 1B | 0 | 143 | 159 | 0 | |
| | | | MATH 1C | 0 | 79 | 99 | 0 | |
| | | | MATH 2 | 0 | 44 | 70 | 0 | |
| | | | MATH 25 | 19 | 158 | 156 | 19 | |
| | | | MATH 27 | 63 | 233 | 210 | 69 | |
| | | | MATH 2A | 0 | 0 | 0 | 0 | |
| | | | MATH 2B | 0 | 0 | 0 | 0 | |
| | | | MATH 4 | 0 | 0 | 40 | 0 | |
| | | | MATH 49 | 0 | 0 | 2 | 0 | |
| | | | MATH 5 | 0 | 70 | 66 | 0 | |
| | | | MATH 58 | 0 | 122 | 102 | 0 | |
| | | | MATH 70 | 0 | 10 | 7 | 0 | |
| | | | MATH 71 | 0 | 15 | 11 | 0 | |
| | | | MATH 770 | 242 | 1064 | 1046 | 279 | |
| MATH 8A | 13 | 57 | 30 | 0 | | | | |
| MATH 8B | 0 | 15 | 17 | 0 | | | | |
| MATH 9 | 0 | 85 | 83 | 0 | | | | |
| Mathematics Total | | | 938 | 4652 | 4798 | 987 | | |
| Mathematics Total | | | 938 | 4652 | 4798 | 987 | | |
| Science, Technology, Engineering & Mathematics Total | | | 938 | 4652 | 4798 | 987 | | |
| Grand Total | | | 938 | 4652 | 4798 | 987 | | |

| | |
|----------|-----------------|
| Location | PETALUMA CAMPUS |
|----------|-----------------|

Updated -8/2

| Sum of EnrollCen | | | | Semester | | | | |
|---|-------------|-------------|-------------------|----------|---------|---------|---------|--------|
| Cluster | Department | Discipline | Course | 2010 SU | 2010 FA | 2011 SP | 2011 SU | 2011 F |
| Science, Technology, Engineering & Mathematics | Mathematics | Mathematics | MATH 10 | 0 | 57 | 57 | 0 | |
| | | | MATH 15 | 82 | 228 | 217 | 76 | |
| | | | MATH 150A | 25 | 139 | 143 | 19 | |
| | | | MATH 150B | 0 | 61 | 95 | 0 | |
| | | | MATH 151 | 30 | 124 | 50 | 24 | |
| | | | MATH 155 | 76 | 303 | 244 | 67 | |
| | | | MATH 1A | 0 | 21 | 41 | 0 | |
| | | | MATH 1B | 0 | 23 | 12 | 0 | |
| | | | MATH 25 | 0 | 24 | 26 | 0 | |
| | | | MATH 27 | 0 | 39 | 38 | 0 | |
| | | | MATH 58 | 0 | 31 | 29 | 0 | |
| | | | MATH 9 | 0 | 28 | 31 | 0 | |
| | | | Mathematics Total | | | 213 | 1078 | 983 |
| Mathematics Total | | | | | | | | |
| Science, Technology, Engineering & Mathematics Total | | | | | | | | |
| Grand Total | | | | | | | | |

| | |
|----------|-------------------|
| Location | SANTA ROSA CAMPUS |
|----------|-------------------|

Updated 08/2

| Count of Course | | | | Semester | | | | |
|---|-------------|-------------|-----------|----------|---------|---------|---------|--------|
| Cluster | Department | Discipline | Course | 2010 SU | 2010 FA | 2011 SP | 2011 SU | 2011 F |
| Science, Technology, Engineering & Mathematics | Mathematics | Mathematics | MATH 10 | 1 | 3 | 2 | 1 | |
| | | | MATH 101 | 0 | 0 | 1 | 0 | |
| | | | MATH 15 | 7 | 20 | 19 | 7 | |
| | | | MATH 150A | 2 | 18 | 12 | 2 | |
| | | | MATH 150B | 2 | 6 | 8 | 2 | |
| | | | MATH 151 | 2 | 10 | 10 | 2 | |
| | | | MATH 155 | 5 | 22 | 20 | 5 | |
| | | | MATH 16 | 0 | 1 | 1 | 0 | |
| | | | MATH 1A | 2 | 7 | 7 | 2 | |
| | | | MATH 1B | 0 | 5 | 5 | 0 | |
| | | | MATH 1C | 0 | 3 | 3 | 0 | |
| | | | MATH 2 | 0 | 2 | 2 | 0 | |
| | | | MATH 25 | 1 | 5 | 5 | 1 | |
| | | | MATH 27 | 2 | 7 | 6 | 2 | |
| | | | MATH 2A | 0 | 0 | 0 | 0 | |
| | | | MATH 2B | 0 | 0 | 0 | 0 | |
| | | | MATH 4 | 0 | 0 | 1 | 0 | |
| | | | MATH 49 | 3 | 3 | 3 | 3 | |
| | | | MATH 5 | 0 | 2 | 2 | 0 | |
| | | | MATH 58 | 0 | 4 | 3 | 0 | |
| | | | MATH 70 | 0 | 1 | 1 | 0 | |
| | | | MATH 71 | 0 | 1 | 1 | 0 | |

| | | | | | | | |
|--|-------------------|-------------------|----------|----|-----|-----|----|
| | | | MATH 770 | 1 | 1 | 1 | 1 |
| | | | MATH 8A | 1 | 2 | 1 | 1 |
| | | | MATH 8B | 0 | 1 | 1 | 0 |
| | | | MATH 9 | 1 | 3 | 3 | 0 |
| | | Mathematics Total | | 30 | 127 | 118 | 29 |
| | Mathematics Total | | | 30 | 127 | 118 | 29 |
| Science, Technology, Engineering & Mathematics Total | | | | 30 | 127 | 118 | 29 |
| Grand Total | | | | 30 | 127 | 118 | 29 |
| | | | | | | | |
| | | | | | | | |

| | |
|----------|-----------------|
| Location | PETALUMA CAMPUS |
|----------|-----------------|

| Count of Course | | | | Semester | | | | | | |
|---|-------------|-------------|-------------------|----------|---------|---------|---------|--------|---|--|
| Cluster | Department | Discipline | Course | 2010 SU | 2010 FA | 2011 SP | 2011 SU | 2011 F | | |
| Science, Technology, Engineering & Mathematics | Mathematics | Mathematics | MATH 10 | 0 | 2 | 2 | 0 | | | |
| | | | MATH 15 | 3 | 7 | 6 | 3 | | | |
| | | | MATH 150A | 1 | 5 | 5 | 1 | | | |
| | | | MATH 150B | 1 | 2 | 3 | 0 | | | |
| | | | MATH 151 | 1 | 5 | 2 | 1 | | | |
| | | | MATH 155 | 4 | 9 | 7 | 3 | | | |
| | | | MATH 1A | 0 | 1 | 1 | 0 | | | |
| | | | MATH 1B | 0 | 1 | 1 | 0 | | | |
| | | | MATH 25 | 0 | 1 | 1 | 0 | | | |
| | | | MATH 27 | 0 | 2 | 1 | 0 | | | |
| | | | MATH 58 | 0 | 1 | 1 | 0 | | | |
| | | | MATH 9 | 0 | 1 | 1 | 0 | | | |
| | | | Mathematics Total | | | 10 | 37 | 31 | 8 | |
| | | | Mathematics Total | | | 10 | 37 | 31 | 8 | |
| Science, Technology, Engineering & Mathematics Total | | | | 10 | 37 | 31 | 8 | | | |
| Grand Total | | | | 10 | 37 | 31 | 8 | | | |
| | | | | | | | | | | |

5.9a Curriculum Responsiveness

We offer a very standard mathematics curriculum. The only lower division course that we do not offer that a small number of our students who are Mathematics Majors would like to take is a course in Logic and Proof. We have developed this course and it is active but the two times we have offered it the enrollment has been far too low for the class to run.

The rest of our curriculum remains robust in order to satisfy the myriad transfer needs of our students.

5.9b Alignment with High Schools (Tech-Prep ONLY)

Through the Cal-PASS program, we had been meeting with local high school instructors to determine our mutual expectations. We have implemented an assessment project that the high schools use to determine the readiness of incoming students to Santa Rosa Junior College. We have also sponsored the JUMP-Start program which allows students to review specific areas of mathematics to prepare the students to assess into more advanced mathematics courses at Santa Rosa Junior College. This will help these students to move through the mathematics curriculum more quickly.

Since not all high schools teach the curriculum in the same way, we give our newly entering students from high school a placement exam that will properly place them into the mathematics curriculum at Santa Rosa Junior College.

5.10 Alignment with Transfer Institutions (Transfer Majors ONLY)

We have been meeting on a yearly basis with the Professors at Sonoma State University and part of our discussions center around curriculum. We take the time to check in with our most common transfer universities like SSU, UCD, UCB, UCSC, UCSB, Cal-Poly SLO, SFSU, CSUS, HSU among others in order to see how they handle their lower division courses. We are in alignment with most of these programs.

Our current transfer courses align with those of the CSUs and UCs. We are in the process of creating a Mathematics For Transfer degree and we continue to align our transfer courses with the C-ID descriptors in order to receive state approval of the courses and the Math for Transfer major.

5.11a Labor Market Demand (Occupational Programs ONLY)

Not applicable.

5.11b Academic Standards

It is always the goal of the Mathematics Department to ensure that the proper academic standards are maintained to insure the success of our transfer students. Periodic checks of our curriculum's alignment with our numerous transfer institutions are made and when we notice a problem we make sure that the problem is addressed so that our students will transfer seamlessly. The SRJC Math department has very rigorous academic standards. It is important to us that students who take our courses can succeed in subsequent courses at any institution. In light of the current push to get students through this institution quickly, and with an evolving definition of success that seems to be less about education and more about completion, we will have to work hard to maintain our high standards.

6.1 Progress and Accomplishments Since Last Program/Unit Review

| Rank | Location | SP | M | Goal | Objective | Time Frame | Progress to Date |
|------|------------|----|----|---|---|------------|--|
| 0001 | Santa Rosa | 00 | 00 | We hope to have the Math lab funded in a more reliable and permanent method. | | 6 months | Funds to provide additional Lab Instructors and Student or Classified Lab Assitants. |
| 0002 | Santa Rosa | 00 | 00 | Successfully offer Math 6 and coordinate with SSU to make sure that the students are being well-served by the course. | Advertise that we plan to offer Math 6 in the spring to try to get enough students for it to run. | 1 year | none |

6.2a Program/Unit Conclusions

| Location | Program/Unit Conclusions |
|----------|---|
| ALL | Our students continue to find it difficult to get their mathematics requirements completed due to increasing demand for classes. We have added as many sections as we are able to staff, but the demand still far exceeds our capacity. Our faculty need is going to become dire in a semester or two. We will be lucky to keep up with upcoming retirements, not to mention meet the students' needs by growing our full-time faculty. |

6.2b PRPP Editor Feedback - Optional

6.3a Annual Unit Plan

| Rank | Location | SP | M | Goal | Objective | Time Frame | Resources Required |
|------|------------|----|----|---|---|------------|--|
| 0001 | Santa Rosa | 00 | 00 | We hope to have the Math lab funded in a more reliable and permanent method. | | 6 months | Funds to provide additional Lab Instructors and Student or Classified Lab Assitants. |
| 0002 | Santa Rosa | 00 | 00 | Successfully offer Math 6 and coordinate with SSU to make sure that the students are being well-served by the course. | Advertise that we plan to offer Math 6 in the spring to try to get enough students for it to run. | 1 year | none |