

Program: Mathematics and Statistics

Date of Next Program Review: 2011 - 2012

- 1) Based upon the data provided, rate the current status of the program:
 growing maintaining declining (Briefly explain)

To compare the data provided with the data used in the 2008 – 2009 program review, the data provided for statistics and the data provided for mathematics were combined. The total WSCH, the annual total FTEF and the FTES do not appear to be significantly different. Although the enrollment in aggregate are not significantly different, there has been increased enrollment in the higher lever mathematics classes, such as Math 2A, Math 3, and Math 2B.

- 2) Explain significant changes in the program since the last annual update.

- Course outlines were submitted to the Curriculum Committee to introduce a new course series, Math 52A and Math 52B (Intermediate Algebra –First Half and Second Half), as an alternate, slower-paced path through the material covered to meet the learning objectives of Math 52. The outlines were approved and a section of Math 52A was scheduled in Fall 2009 with a subsequent section of Math 52B to be scheduled in Spring 2010.
- A revised course outline was submitted to the Curriculum Committee to increase the number of units in Math 1A (First Semester Calculus) from 4 to 5 units. The outline was approved and the change was made in the Fall 2009 schedule.
- Faculty continued to confer with the appropriate deans to develop appropriate class sizes that support a positive learning environment. Faculty proposed the following class sizes:

Math 110 --- 35 students

Math 111, Math 50, and Math 52 --- 40 students

Math 50A, Math 50B, Math 52A and Math 52B--- 24 students

All other Math classes --- 50 students.

No resolution was reached during the 2008 – 2009 academic year. The discussion was continued into fall 2009.

At the Marysville Campus:

- Faculty continued to expand the use of web-enhanced course materials and the use of technology-enhanced lectures. In particular, some instructors have bundled their Math 110 textbooks with a student license for MyMathLab, an online resource available to students. These instructors are using the program as an additional resource for students and, in some sections, are requiring their students to submit homework online.
- Faculty participated in the Measure J Building 500/ 700 committee to try to determine a future location which will provide adequate space for the Hard Math Café and the MESA Center.
- Faculty met with members of the Measure J Building 500/700 committee to try to ensure that the remodel will provide needed classrooms for Mathematics instruction.
- Faculty have secured Basic Skills Initiative (BSI) funds for installation of 4 computers and internet connectivity in the Hard Math Café Annex.

At the Clear Lake Campus:

- Forty licenses for Minitab 14 were obtained for one computer lab and the learning center

- 3) Briefly explain significant changes expected during the upcoming year.
- A petition will be submitted to the Curriculum Committee to add Math 51 to the General Education requirements for the AA degree. The goal is to have the petition presented to the Curriculum Committee in Fall 2009.
 - Faculty will confer with the appropriate deans and reach a tentative agreement regarding appropriate class sizes that support a positive learning environment.
 - Faculty will continue to meet with members of the Measure J Building 500/700 committee and work to obtain adequate space for the Hard Math Café and MESA Center.
 - Faculty will continue to meet with members of the Measure J Building 500/700 committee and work to obtain classrooms primarily dedicated to the teaching of Mathematics.
 - Faculty will work with IT to get Internet Access (preferably WiFi) in the Hard Math Café Annex.
- 4) Briefly identify the current program needs in each of the following areas:
- Curriculum and Program Direction
 - (1) Set reasonable class cap sizes on math.
 - (2) Provide more paid office hours for adjunct faculty in math. At least 12 paid office hours per week should be provided. Assuming a lab rate of \$44 per hour and that the office hours would be held for 32 weeks a year, the cost would be \$16,896.
 - (3) Increase the availability of computer lab space to support the increasing use of MyMathLab and other internet-enhanced courses.
 - Staffing

At both campuses:

 - (1) There is need to provide at least 20% release time or a commensurate stipend for each of two math coordinators.
 - (2) There is a need to provide release time for a department chair to perform the duties of a chair.

At the Clear Lake campus:

 - (1) Another full-time math faculty member is needed. The cost of an additional full-time faculty member is within the range of \$50,397 to \$81,126. One or more adjunct could be added instead, but it is hard to find qualified adjunct in the Clear Lake area.
 - Facilities and/or Equipment

At the Marysville Campus:

 - (1) Room 1902 from where the ITV courses are broadcast continues to need better equipment for math lectures. In particular, the Math faculty, for many years, has discussed with the DE staff the need to install a large white board in the classroom. A standard white board does not work because the glare interferes with the filming of the course. The DE staff has been unable to locate an adequately sized board which will allow filming. Such a board must exist since there are many video lectures available from publishers, where the presenter is writing on a large white board. Since the brand of these boards is unknown, it is not possible to estimate the cost.
 - (2) There is an acute need for modern classrooms and labs. Currently, many of the Math classes are held in the 3000 building (the swing space.) These rooms are not

conveniently located to the Math faculty offices or to any of the Math support resources. Many of the lower level classes (Math 110, Math 111, Math 50, and Math 52) are taught in these facilities. These students typically will not walk all the way across campus to ask a question of a faculty member or to take advantage of the drop-in for tutoring available in the Hard Math Café Annex. There need to be classrooms near the faculty offices and the Hard Math Café (Annex.)

(3) There is a need for larger faculty offices (full-time and adjunct). A shared office is needed for the adjunct to meet privately with students during their office hours.

(3) Larger facilities are needed to house both the Hard Math Café and the MESA Center.

At the Clear Lake Campus:

(1) A WiFi network is needed

(2) A room is needed for faculty to host drop-in math help (similar to the Hard Math Café at the Marysville Campus.)

5) What progress has been made on the recommendations from the last annual update? Please specifically list and address all recommendations.

- Course outlines for Math 52A and Math 52B have been approved. The Math 52A course was offered in Fall 2009.
- Course outline for Math 1A has been approved. A 5 unit course was offered in Math 1A in Fall 2009
- In Fall 2009, a temporary agreement regarding class caps was reached. The following class sizes were agreed to:

Math 110 and Math 111 - 40

Math 50 and Math 52 - 45

Math 50A, Math 50B, and Math 52B - 30 students

All other Math classes - 45 students

Due to the current budgetary constraints and schedule compression faculty agreed to the higher class caps in the developmental and Algebra courses with the understanding that the subject would be revisited in the next year or two. This agreement will be included again in the 2009- 2010 annual report.

At the Marysville Campus:

- The measure J committee for Building 500/700 remodel identified rooms 714 and 715 as a potential facility to house the Hard Math Café and the MESA Center. If this were to happen, this would free up rooms 702 and 700/701 for Math classrooms. Rooms 700/701 would be converted to a single classroom. Thus there would be 2 classrooms dedicated to the instruction of Mathematics.

At the Clear Lake Campus:

- Forty licenses for Minitab 14 were obtained for one computer lab and the learning center