Chabot College Institutional Core Values and Framework

A. Vision

Chabot College is a learning-centered institution with a culture of thoughtfulness and academic excellence, committed to creating a vibrant community of lifelong learners.

B. Mission Statement

Chabot College is a public, comprehensive community college that prepares students to succeed in their education, progress in the workplace, and engage in the civic and cultural life of the global community. The college furthers student learning and responds to the educational needs of our local population and economy. The college serves as an educational leader, contributing its resources to the intellectual, cultural, physical, and economic vitality of the region. Recognizing that learning is a lifelong journey, the college provides opportunities for intellectual enrichment and physical well-being of all community members who can benefit.

C. Values

LEARNING AND TEACHING
• Supporting a variety of teaching philosophies and learning modalities.
• Providing an environment conducive to intellectual curiosity and innovation.
• Encouraging collaboration that fosters learning.
• Engaging in ongoing reflection on learning by students and by staff.
• Cultivating critical thinking in various contexts.
• Supporting the development of the whole person.

COMMUNITY AND DIVERSITY
• Building a safe and supportive campus community.
• Treating one another with respect, dignity, and integrity.
• Practicing our work in an ethical and reflective manner.
• Honoring and respecting cultural diversity.
• Encouraging diversity in our curriculum and community of learners.

INDIVIDUAL AND COLLECTIVE RESPONSIBILITY
• Taking individual responsibility for our own learning.
• Cultivating a sense of social and individual responsibility.
• Developing reflective, responsible, and compassionate citizens.
• Playing a leadership role in the larger community.
• Embracing thoughtful change and innovation.
Unit Plan: Description of the Unit

Unit: Mathematics
Division or Area to Which You Report: Science & Mathematics
Author(s) of this Unit Plan: Joe Berland, Indrani Chaudhuri, Ming Ho, Anita Wah, Matt Davis, Marcia Kolb, Doris Hanhan, Milton Rube, Jonathan Traugott
Date: 3/14/08

Audience: To be read and responded to primarily by Marketing and Outreach
Purpose: Used for public relations, used in catalog and/or brochures, grant applications. Marketing & recruiting materials
Instructions: Write about one paragraph which should include the unit’s mission statement. You may include an image or picture, if you wish. You may use last year’s description with updates or revisions as needed.

The mission of the math subdivision is to instill an understanding and appreciation of mathematics and to provide students with the mathematical knowledge they need to succeed in college and their careers.

A wide range of courses is offered, from courses in basic mathematics and algebra to transfer courses in subjects such as calculus or linear algebra. Mathematics courses are offered that are oriented toward degree and certificate students, toward transfer in the Liberal Arts, and toward transfer in science and technology. Our Math Lab gives students a place to go almost any time of day to receive tutorial services from math instructors and student tutors.
# Unit Plan: Accomplishments and Goals

**Unit:** Mathematics  
**Division or Area to Which You Report:** Science & Mathematics  
**Author(s) of this Unit Plan:** Joe Berland, Indrani Chaudhuri, Ming Ho, Anita Wah, Matt Davis, Marcia Kolb, Doris Hanhan, Milton Rube, Jonathan Traugott  
**Date:** 3/14/08

**Audience:** IPBC; Deans/Unit Administrators; Budget Committee  
**Purpose:** To provide evidence of progress on Strategic Planning Priorities from previous year and to provide input into planning for subsequent years.  
**Instructions:**  
1. Insert the Goals & Objectives from your last year’s unit plan “Part II, Section 2: Goals/Objectives (What you Hope to Accomplish)” into “Section 1: Accomplishments” below.  
2. Update accordingly, reflecting upon the activities you’ve undertaken in the past year. Be brief. No more than two pages.  
3. In Section 2, please include your new, revised, or continuing goals for the next year (some may be the same as before). No more than one page.  

*Please make sure to number and list goals in PRIORITY ORDER (1, 2, 3, ETC.). This will determine where any new resources may be allocated. Be sure to include accomplishments and goals related to Strategic Planning Priorities, including student learning.*

**Note:** Priority Objectives and Strategic Plans are hyperlinked. Use Chabot Enrollment Management Committee Reports to generate Student Success and Equity data reports by course, discipline, and term. Use these data to inform your goals and objectives. *(Note: Reports are only available on PC. If you are a Mac user, please have your dean print a copy)*

## Section 1: Accomplishments from Last Year’s Unit Plan (What You Have Done):

<table>
<thead>
<tr>
<th>No.</th>
<th>Goal/Objective from last year’s Unit Plan</th>
<th>Activities Undertaken to Achieve the Goal/Objective</th>
<th>Results</th>
<th>Priority Objective / Strategic Plan Goal</th>
<th>Accomplished?</th>
<th>Did you receive additional funds to support this goal/objective?</th>
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<tbody>
<tr>
<td>1.</td>
<td>Increase the depth of concepts and techniques presented in Math 65 &amp; 55</td>
<td>Through the course syllabi, all instructors were made aware of Joe Berland’s supplementary materials, and those materials were made available both electronically and in hard copy.</td>
<td>Some instructors made use of some of the materials and found they enhanced the depth of student learning. Others chose not to use them.</td>
<td>Goal 19 Obj. 19d</td>
<td>Yes</td>
<td>No</td>
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<td>2.</td>
<td>Increase the quality of tutorial services in mathematics</td>
<td>Continued tutor training course for MTH 1 students or higher who tutor in Math Lab and/or do one-to-one tutoring in PATH center. Formed new course, TUTR 49B, for students from lower math courses who tutor in PATH only. Streamlined interview/hiring process for tutors.</td>
<td>Student tutors are better trained and qualified to assist math students. We still need to work on getting instructor recommendations for tutors earlier.</td>
<td>Goal 19 Obj. 19b</td>
<td>Yes, with further improvements in process.</td>
<td>Yes (from Learning Connection)</td>
</tr>
</tbody>
</table>
| 3.  | Reduce the cost of textbooks and calculators to students. | Created customized texts, found older editions, and negotiated lower prices in return for time commitments.  
The calculator rental program was transferred to a the bookstore with | Greatly lowered prices for texts in Math 105, 55, 43, 20, 1, 2, and 3.  
Students like this program. Demand exceeds supply. However, after three semesters of renting | Goal 19 Obj. 19b | Yes, and will continue. | No                                                            |
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<tr>
<td>4.</td>
<td>Hire graders to help instructors grade or check the completeness of HW assignments.</td>
<td>BSI funds were found to be most effectively used to hire tutors. We are hiring one grader in Spring 08 to compare the results of having homework “hand-graded” versus graded using Math XL only.</td>
<td>Math XL may have obviated the need for graders. We will determine this in Spring 08.</td>
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<td></td>
<td>Marcia Kolb used BSI funds to hire a former student to grade HW for Math 105.</td>
<td>Marcia was able to collect HW daily and return papers in a timely manner.</td>
<td>Goal 19 Obj. 19b and 19d</td>
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<td>In Process</td>
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<td></td>
<td>Yes (BSI)</td>
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<td>5.</td>
<td>Provide service learning opportunities to Chabot students at Boys and Girls Club of San Leandro and Ochoa Middle School.</td>
<td>Several students in Doris Hanhan’s Math courses volunteered as Math tutors at the Boys and Girls Club of San Leandro as well as Ochoa Middle School. Students completed at least 15 hours of volunteer time and earned extra credit towards their final. Weekly reflection papers were assigned and at the end they filled out a survey about their experience. At the end of the school year, students that participated received a certificate and had the opportunity to share their experience with other students that participated in different service learning projects across campus.</td>
<td>Many of the students that volunteered were interested in working with young children. This gave them an opportunity to get some hands on experience. They served as role models and mentors to the young children and students seemed to enjoy that leadership role. Doris has made new partners to work with Girls Inc. and Longwood Elementary School.</td>
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<td>Goal 8 Obj. 8a; Goal 19 Obj. 19b and 19d</td>
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<td>YES. And Doris will continue to offer service learning as an option.</td>
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<td>No, not for this year, but Doris has received some for the upcoming year.</td>
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<td>6.</td>
<td>Increase student success by providing more support in developmental mathematics classes.</td>
<td>Cindy Stubblebine identified, hired, and trained peer tutors; created schedules and assignments that encouraged work with peer tutors in a collaborative environment.; used peer tutor feedback and student</td>
<td>As of this writing, Cindy was on leave out of the country. She wrote an assessment of the program that is available through Cindy Hicks.</td>
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<td>Goal 19 Obj. 19b; Goal 19 Obj. 19c; Goal 19 Obj. 19d</td>
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<td>Ongoing</td>
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<td>Release time? Funds from Learning Connection?</td>
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<td>No.</td>
<td>Objectives and Strategies</td>
<td>Results/Outcomes</td>
<td>Goal/Obj.</td>
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<td>7.</td>
<td><strong>Increase student success in Math 43 (Probability and Statistics)</strong></td>
<td>Workshops were introduced for Math 43. Melita Fogle now staffing the computer lab full time. Additional Minitab licenses were purchased. Minitab was installed on the library computers. No action on using 3906 as a teaching lab for stat.</td>
<td>Goal 19 Obj. 19b</td>
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<td>Minitab access for students has been greatly improved by the addition of a full time staff person in 3906. The additional Minitab licenses and placement in the library has also greatly improved access. Evening access to instructors in the evening is still limited.</td>
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<td>8.</td>
<td><strong>Assist students in transitioning from developmental to college level mathematics.</strong></td>
<td>Materials have been continuously revised in response to student suggestions and disseminated for use by other faculty members. Quizzes have been written to be consistent with the mastery learning Developmental Math Project. There are on-going efforts to inform counselors and students of the course through e-mails, flyers, and ads in the schedule of classes.</td>
<td>Goal 19 Obj. 19d Goal 19 Obj. 19b</td>
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<td>Counselors express a need for an evening section. Demand for daytime classes has not increased in spite of the fact that most of our students have an educational plan in which Math 54 would be a better choice than Math 55. One explanation is that the course is not easy. Students who complete the course give it extremely high ratings for effectiveness, but many students choose a section of Math 55 that is less demanding. (This is easy to do with the information from teacher rating websites.) We have also observed that improving the preparation of students for Math 43 may be the least efficient way to increase pass rates. Instead, we could increase the number of Math 43 sections taught by the instructors who currently achieve high pass rates by omitting the most challenging topics in the course outline.</td>
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<td>9.</td>
<td><strong>Increase student success in college level math by creating a more uniform standard for success in developmental math courses.</strong> Increase student success in all courses with a math prerequisite by creating a more uniform standard for success in the prerequisite</td>
<td>We created a mastery-learning project in some sections of Math 105, 65, and 54. Faculty worked together to create assessments that reflected a standard of achievement that would prepare students to succeed in the next math courses. Students were required to demonstrate mastery of all major concepts, not just achieve a passing average. PATH assisted with proctoring of quizzes taken by students who needed repeated attempts to achieve passing scores and by training tutors hired with our grant funds. In Spring 08, some sections of Math 65 have a scheduled lab during which Math</td>
<td>Goal 14 Obj. 14d; Goal 19 Obj. 19b and 19d</td>
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<td>Results have been very favorable. Based on student comments and attitudes in subsequent classes, we believe that this project is successful in accomplishing our stated goal of shifting students’ focus from testing and grading to learning and understanding. Instructors have learned a great deal about students’ preparation, attitudes about learning, and level of mastery of prerequisite content. However, there is not much room in the computer lab to expand the project. Also, PATH will be unable to provide proctoring after May 08. The project will not expand beyond its current size unless the space and resources needed, as outlined in Proposal for New Initiatives, become available within the next 18 months.</td>
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</table>
10. Improve student success and persistence in Elementary Algebra.  
Supplementary materials have continued to be written by several instructors, particularly for the lab part of Math 105L. Marcia Kolb participated in the mastery learning project described in #9 above, teaching Math 105L. Math 105 curriculum changed to include more prealgebra (signed numbers, equations, expressions). Created Math 105L with 2 hours additional class time.  
All proposed activities in Basic Math have been completed, but the goal of increased success by 105 students in their subsequent Elementary Algebra course has probably been accomplished for only a few students. Given our admissions, assessment, placement, and financial aid policies, we believe that we have accomplished everything possible at the classroom level. At the level of Basic Math, lack of student success is due primarily to external factors beyond the control of an individual instructor. Further progress will require the commitment of the college to change policies (see #11 below) and provide a different approach to assessment and remediation (see attached Proposal for New Initiatives.) Students who succeed with mastery learning are more likely to succeed in Math 65.  
Goal 19 Obj. 19b and 19d  
Yes  
No

11. Instructors will study best practices in developmental mathematics education.  
We studied books, journal articles, and state and national reports. Based on effective practices described therein, we designed a pilot project within the math department and wrote a report recommending policy changes at the college level.  
We have presented our recommendations for policy changes on several occasions, but there has been no progress in implementation.  
Goal 10 Obj. 10c;  
Goal 14 Obj. 14d;  
Goal 19 Obj. 19b and 19d  
Yes  
No

12. Develop Math 55 hybrid online courses, one with original content and one using published content.  
Math 55 Online (Hybrid) was approved by the DE committee. Five sections were offered in Fall 07 and two in Spring 08. Instructors used Math XL/MyMathLab software.  
Students who couldn't normally attend school because of family, work, or geography could take the class; these students succeeded. But many students were under-prepared to learn on their own and too undisciplined to meet weekly deadlines on their own. In a night course, the majority were mature working adults who were successful. The course doesn’t work for those who are not self-motivated, self-disciplined, and computer savvy. The Math XL/MyMathLab component worked well.  
Students who couldn't normally attend school because of family, work, or geography could take the class; these students succeeded. But many students were under-prepared to learn on their own and too undisciplined to meet weekly deadlines on their own. In a night course, the majority were mature working adults who were successful. The course doesn’t work for those who are not self-motivated, self-disciplined, and computer savvy. The Math XL/MyMathLab component worked well.  
Goal 4 Obj. 4g;  
Goal 8 Obj. 8h and 8d;  
Goal 19 Obj. 19b  
Yes. We will continue to offer the hybrid online course. Evaluation and adjustments ongoing.  
Yes, through the Distance Ed program

13. Improve number of well-trained tutors in Math Lab.  
See Item #2.  
Number of trained tutors has increased, helped by the funding from the Learning Connection that pays for their training and their salary. Number of students seeking help in Math Lab and PATH has increased.  
Goal 19 Obj. 19b and 19d  
Yes, with further improvements in  
Yes (from Learning Connection)
|   |   | 14. Develop HW and progress assessment for Math 55 using MyMathLab. | The sections in 2006-2007 were successful and used as basis for developing the online section (see goal #12). Additional section is currently being offered to further evaluate the use of the software in traditional (Non-DE) sections. (Milton Rube, Daryl Crew) | Goal 4 Obj. 4g; Goal 8 Obj. 8h and 8d; Goal 19 Obj. 19b |  
|   |   | The sections in 2006-2007 were successful and used as basis for developing the online section (see goal #12). Additional section is currently being offered to further evaluate the use of the software in traditional (Non-DE) sections. (Milton Rube, Daryl Crew) | Goal 4 Obj. 4g; Goal 8 Obj. 8h and 8d; Goal 19 Obj. 19b |  
|   |   |   | In process | No  
|   |   | 15. Create assessment test for Basic Math on whole number arithmetic facts; create fundamentals course for those who do not pass. | Cindy Stubblebine submitted the goal to write the assessment test. She is out of the country and we do not know if the test was written. Cindy showed a draft of a course outline for a “Whole Number Arithmetic” course to the Curriculum Committee for their information only, but it has not yet been approved. | Goal 19 Obj. 19c |  
|   |   | Cindy Stubblebine submitted the goal to write the assessment test. She is out of the country and we do not know if the test was written. Cindy showed a draft of a course outline for a “Whole Number Arithmetic” course to the Curriculum Committee for their information only, but it has not yet been approved. | Goal 19 Obj. 19c | In Process | Release time?  
|   |   | The sections in 2006-2007 were successful and used as basis for developing the online section (see goal #12). Additional section is currently being offered to further evaluate the use of the software in traditional (Non-DE) sections. (Milton Rube, Daryl Crew) | Goal 4 Obj. 4g; Goal 8 Obj. 8h and 8d; Goal 19 Obj. 19b |  
|   |   |   | In process | No  
|   |   | 16. Create learning community of pre-nursing students involving math, chemistry, and biology subdivisions. | The idea was discussed with the nursing program. The members of the nursing program were too busy with other pressing matters (including program review) to consider it. The learning communities were not implemented | Goal 19 Obj. 19b and 19d |  
|   |   | The idea was discussed with the nursing program. The members of the nursing program were too busy with other pressing matters (including program review) to consider it. The learning communities were not implemented | Goal 19 Obj. 19b and 19d | No | No  
|   |   | 17. Get better open hour coverage for stat students in Room 3906. | Workshops were introduced for math 43. Melita Fogle is now staffing the computer lab full time. Minitab was installed on the library computers. Minitab access for students has been greatly improved by the addition of a full time staff person in 3906. The additional Minitab licenses and placement in the library has also greatly improved access. Evening access to instructors in the evening is still limited. | Goal 19 Obj. 19b |  
|   |   | Workshops were introduced for math 43. Melita Fogle is now staffing the computer lab full time. Minitab was installed on the library computers. Minitab access for students has been greatly improved by the addition of a full time staff person in 3906. The additional Minitab licenses and placement in the library has also greatly improved access. Evening access to instructors in the evening is still limited. | Goal 19 Obj. 19b | Yes for day students. Evenings access is still limited. | No  
|   |   | 18. Purchase document presentation equipment for the math subdivision. | An equipment request was submitted in the last Unit Plan. The request for this equipment was not approved. However, media services now has enough of this equipment to make it available to all who need it. | Goal 19 Obj. 19b |  
|   |   | An equipment request was submitted in the last Unit Plan. The request for this equipment was not approved. However, media services now has enough of this equipment to make it available to all who need it. | Goal 19 Obj. 19b | No | No  
|   |   | 19. Create refresher workshops for Math 65 and 55 assessment tests. | Prepare materials. Notify students of workshop opportunities. Run workshops. Use student surveys to assess workshops and revise accordingly. Attendance was poor, but those who attended have very positive feedback. We are continuing the workshop in Spring 08 targeting early decision students from high school, hoping that will draw better attendance. | Goal 16 |  
|   |   | Prepare materials. Notify students of workshop opportunities. Run workshops. Use student surveys to assess workshops and revise accordingly. Attendance was poor, but those who attended have very positive feedback. We are continuing the workshop in Spring 08 targeting early decision students from high school, hoping that will draw better attendance. | Goal 16 | Yes and continuing with Spring 08 workshops | No  


<p>| No. | Goal/Objective                                                                 | What you hope to accomplish                                                                 | Proposed Activities Completed to Achieve Goal/Objective                                                                 | Priority Objective/Strategic Plan Goal  | Time Frame (semester, year, five years, etc.) | Are you including a request for additional resources in this unit plan? | <strong>Yes/No</strong> | If yes, what type?** |
|-----|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------|--------------------------------------------------------------------------------|<strong><strong><strong><strong>|</strong></strong></strong></strong>____________|
| 1.  | Increase student success in college level math by creating a more uniform standard for success in developmental math courses. Increase student success in all courses with a math prerequisite by creating a more uniform standard for success in the prerequisite math courses. | To shift the students’ focus from testing and grading to learning and understanding. To shift the instructors’ focus to assessment of learning of clearly defined objectives. | Continue work on the developmental mathematics mastery learning project as described in #9 in Section 1 and in our project descriptions for the BSI grant. Work toward implementation of the program described in Proposal for New Initiatives to allow for continued expansion of project. | Goal 14 Obj. 14d; Goal 19 Obj. 19b and 19d | three years | Yes | Staffing | Equipment | Supplies | FTEF |
| 2.  | Create assessment test for Basic Math on whole number arithmetic facts; create fundamentals course for those who do not pass. | The number of students passing Basic Math in one try increases due to increased fluency and foundation in whole number arithmetic. | Determine what math skills students should have. Create or find assessment test and determine cut-off scores. Evaluate success of test and revise accordingly. Submit course outline to curriculum committee for approval. Offer course. Review success/retention of students in Basic Math who took the course after chapter on fractions and at end of Basic Math course. | Goal 19 Obj. 19c | Two years | No |
| 3.  | Improve the assessment process for placement into math courses. | Increase student success and persistence by better placement of students into appropriate math courses. | Investigate whether cut scores need to be raised, especially for Math 65 and 55 (we have already started a study of this with Carolyn Arnold). Investigate whether grade variability amongst math instructors indicates that there are some instructors who regularly pass ill-prepared students (we have also started a study of this with Carolyn). Investigate the possibility of a recency requirement for prerequisite courses, and/or a nonbinding but mandatory assessment for students who took the prerequisite more than a year ago. | Goal 19 Obj. 19c | Two years | No |</p>
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<th>Activity</th>
<th>Objective/Expected Outcomes</th>
<th>Goal/Obj.</th>
<th>Time Frame</th>
<th>Data Collection/Tracking Method</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>Develop an instructor’s workstation in Computer Lab 3906</td>
<td>Improve student success and persistence by providing appropriate technological tools to instructors to enhance instruction.</td>
<td>Goal 19 Obj. 19b, 19d</td>
<td>One year</td>
<td>Yes: Equipment</td>
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<td>Purchase a computer projector to be mounted on the ceiling in 3906. One instructor computer station to be attached to the computer projector. Instructors will be able to appropriately use the technology without the time wasted requesting a computer cart from Media Services and having to set up the equipment.</td>
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<td>5</td>
<td>Continue refresher workshops for Math 65 and 55 assessment tests.</td>
<td>Improve student completion of educational goals by avoiding poor results on the assessment test simply because the student has not done math for a long time.</td>
<td>Goal 16</td>
<td>Three semesters</td>
<td>No</td>
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<td>Notify students of workshop opportunities. Run workshops. Use student surveys to assess workshops and revise accordingly. Target early decision students from high school in order to draw better attendance.</td>
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<td>6</td>
<td>Continue HW and progress assessment for Math 55 using MyMathLab.</td>
<td>Success rates improve due to more personalized assistance and instant feedback with HW.</td>
<td>Goal 4 Obj. 4g; Goal 8 Obj. 8h and 8d; Goal 19 Obj. 19b</td>
<td>Two years</td>
<td>No</td>
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<td>Track student success in traditional (non-DE) sections using MyMathLab and compare with traditional sections. Continue to develop the use of MyMathLab in hybrid courses</td>
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<td>7</td>
<td>Continue to offer hybrid online courses.</td>
<td>Greater access to Math 55 is provided. Course material is delivered effectively using software.</td>
<td>Goal 4 Obj. 4g; Goal 8 Obj. 8h and 8d; Goal 19 Obj. 19b</td>
<td>Ongoing</td>
<td>No</td>
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<td>Evaluate and adjust the courses to improve delivery and student success.</td>
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<td>8</td>
<td>Increase student success by providing more support in developmental mathematics classes.</td>
<td>Improve students’ study habits, and persistence in mathematics by providing them with peer support. Students improve understanding of concepts, use of vocabulary, confidence. Study groups evolve naturally.</td>
<td>Goal 19 Obj. 19b; Goal 19 Obj. 19c; Goal 19 Obj. 19d</td>
<td>Ongoing</td>
<td>No</td>
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<td>Continue to use peer tutor feedback and student surveys to assess the workshops and make changes.</td>
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<td>9</td>
<td>Improve the quality of tutorial services in mathematics</td>
<td>Provide better trained for both drop-in and one-to-one tutoring in mathematics. Increase the size and strengthen the management of Math Lab.</td>
<td>Goal 19 Obj. 19b</td>
<td>One year</td>
<td>No</td>
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<td>Work with Learning Connection to formalize the qualifications and training requirements of tutors. Examples are: Who can tutor? How much and what type of training do they need? Create a 2 or 3 hour workshop to teach the tutors how to use graphing calculators</td>
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<td>10</td>
<td>Hire graders to help instructors grade or check the completeness of HW</td>
<td>Improve success rates by allowing instructors to collect HW more frequently and hold students more accountable for HW.</td>
<td>Goal 19 Obj. 19b and 19d</td>
<td>One Year</td>
<td>No</td>
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<td>Determine whether Math XL has obviated the need for graders.</td>
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<td>HW assignments.</td>
<td>Improve academic success for Chabot students and those at community sites. Students develop leadership skills, connect to the community, and increase self-confidence and sense of purpose.</td>
<td>Chabot students tutor elementary age students through Girls Inc. and Longwood Elementary School.</td>
<td>Goal 8 Obj. 8a; Goal 19 Obj. 19b and 19d</td>
<td>Ongoing</td>
<td>No</td>
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<td>Goal 19 Obj. 19b</td>
<td>Ongoing</td>
<td>No</td>
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<td><strong>List types such as “equipment,” “supplies,” “staffing,” “contractual services,” etc…</strong></td>
<td></td>
<td></td>
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</tbody>
</table>
The math subdivision is in the middle of a pilot program that we call the Developmental Math Project. (The subdivision’s goals and objectives for the program are delineated in Part II, Section 2, Goal/Objective #1.) This project is funded by the Basic Skills Initiative. A group of math instructors researched best practices in basic skills teaching, and developed the program based on the results of that research. Thus we have been offering a course called Math 65L which uses a mastery learning approach, and incorporates the MyMathLab computer program that enables students to do homework on the computer (and receive assistance from the program) and lets the instructor analyze and keep track of the students’ homework progress.

As the project expands a Basic Skills Coordinator will be needed to lead and organize the project. That individual will need to be a full time instructor who has familiarity with both the Developmental Math Project and the Chabot math program as a whole, and the job will require some significant release time.

With the creation of a Basic Skills Coordinator will come a loss of a significant portion of a full time math faculty member’s load from teaching basic skills. Since the best practices research reveals that 50% of basic skills classes should be taught by full time faculty, it is important to hire a new full time math faculty member who has willingness and ability to teach basic skills courses.

In addition, Ken Eberhard is retiring. Ken has traditionally taught two thirds of his load in basic skills. We need a second new math faculty member to replace the loss of Ken to basic skills instruction.

Thus we need to hire two new full time math people. Our intention is to include in the desirable qualifications that the person has the willingness, the expertise, and the desire to teach basic skills courses. The hiring of these individuals will have a positive impact on persistence from basic skills to college-level courses (Goal 19, Objective 19b).
Unit Plan: Classified Staffing Request(s) [Acct. Category 2000]

Unit: Mathematics
Division or Area to Which You Report: Science & Mathematics
Author(s) of this Unit Plan: Joe Berland, Indrani Chaudhuri, Ming Ho, Anita Wah, Matt Davis, Marcia Kolb, Doris Hanhan, Milton Rube, Jonathan Traugott
Date: 3/14/08

Audience: Administrative Staff

Purpose: Providing explanation and justification for new and replacement positions for full-time and part-time regular (permanent) classified positions

Instructions: Please justify the need for your request. Be sure to include reference to Goals/Objectives from Part II, and Strategic Planning Priorities. Please cite any evidence or data to support your request. If this position is categorically funded, include and designate the funding source of new categorically-funded position where continuation is contingent upon available funding.

1 Fulltime Instructional Assistant for Math Department Computer Lab*

As the math department expands its pilot in Developmental Math Program, we have three important needs: Proctoring, assessment, and homework help. The purpose of the program is to increase persistence from basic skills to college-level courses (Goal 19, Objective 19b). The subdivision’s goals and objectives for the program are delineated in Part II, Section 2, Goal/Objective #1.

For students in mastery learning, whether the quizzes are online or paper-and-pencil, they will need to retake their mastery quizzes when they do not pass the first time. When the math faculty used mastery learning without seeking outside help with proctoring retakes, we were overwhelmed. PATH has been extremely helpful to set up proctoring for us late Fall 2007 and Spring 2008 but will no longer provide such service because they perceive the need as only to be in Math. We disagree, as students in on-line courses across campus also need proctoring when their work schedule conflict with on-site exam times, but in the absence of institutional examination of proctoring need, we need this position to fulfill our program needs.

Many developmental math students wait a long time between their math courses. They may have passed a prerequisite class, but because of a long lapse of time (1 year or more), they are really not ready for their next math course. We would like to employ an assessment system by which students with long lapse in math can find out for themselves if they are truly ready for their next math course. As an assessment, it does not just indicate whether or not a student is ready for the next course but informs the students the areas in which they are weak. This IA position is needed to administer these
assessments. When the assessment results show that many students would want a refresher course, then it will encourage the faculty to develop and teach such a course.

The Developmental Math Program has piloted an online homework and testing system (MathXL) with positive results. As we expand its use, we will have more students working in the computer lab on their homework. The IA will help with these students on their academic work, as well as helping these developmental students practice study skills required to benefit from the online resources MathXL provides.

* See the new initiative proposal for a Math Department Computer Lab. Until it is in place, the IA will work in 3906.

Criteria For Classified Staffing Priorities (not necessarily in Priority Order as developed by the Admin Staff)

1) Impact on enrollment and revenue;
2) Safety;
3) Mandates;
4) Workload distribution (impact on other’s work);
5) Relationship to institutional priorities.
Unit Plan: Enrollment Requests

Unit: Mathematics
Division or Area to Which You Report: Science & Mathematics
Author(s) of this Unit Plan: Joe Berland, Indrani Chaudhuri, Ming Ho, Anita Wah, Matt Davis, Marcia Kolb, Doris Hanhan, Milton Rube, Jonathan Traugott
Date: 3/14/08

Audience: Budget, Deans, CEMC, IPBC
Purpose: To recommend changes in FTEF allocations for subsequent academic year and guide Deans and CEMC in the allocation of FTEF to units.

Instructions: In the area below, please list your requested changes in course offerings (with reference to corresponding change in FTEF) and provide your rationale for these changes. Be sure to analyze enrollment trends and other relevant data (http://help/EMC). Please seek your dean’s assistance as needed.

The Mathematics Subdivision has been considering the addition of one non-credit lab hour to each section of Math 105, 65, and 55. We also hope to increase the number of sections of Math 65 that have scheduled labs (Math 65L).

These changes will require additional FTEF, but we cannot yet determine exactly how much until we know whether we will have the lab space to allow these changes to be made. At this point we are providing you with this information only to alert you to the potential future need for additional FTEF that may arise.
Unit Plan: Equipment Requests [Acct. Category 6000]

Unit: Mathematics
Division or Area to Which You Report: Science & Mathematics
Author(s) of this Unit Plan: Joe Berland, Indrani Chaudhuri, Ming Ho, Anita Wah, Matt Davis, Marcia Kolb, Doris Hanhan, Milton Rube, Jonathan Traugott
Date: 3/14/08

Audience: Budget, Deans
Purpose: To be read and responded to by Budget Committee.
Instructions: Please fill in the following as needed. Text boxes below will expand as you type.
Please note: this form is for equipment whose unit cost is over $200

Brief Title of Request (Project Name): Developmental Math Project at Math Lab (DMP@ML)

Building/Location: Room 1712

Request Amount (include unit cost, total cost, tax, and shipping):
8 Computers @ $1457 each $ 11,656
Wireless Adapters $  400
Tax (assume 8.5%) $  1025
Shipping $  400 (We really have no idea how much shipping is)
Total $ 13,481

Description of the specific equipment or materials requested:
8 Computers stations.

What educational programs or institutional purposes does this equipment support?
These computers help support the Developmental Math Program and the institutional commitment to basic skills.
Briefly describe how your request relates specifically to the Educational Master Plan and the Goals and objectives Section of your Unit Plan (Part II, Section 2)?

These computers relate to Goal/Objectives #1, 6, and 7 in Part II Section 2 of this Unit Plan, and to the various references to improving basic skills in the Education Master Plan. The math department has begun piloting MathXL, an online homework and testing system, with positive results that have attracted new faculty to use it. It improves student learning by having the computer give instant feedback to student work and provides instructors with the capability to require student demonstration of study effort before assessments are given. However, there is no tutor in the computer lab, so we want to have some computers in the Math Lab to support the students. Since the Math Lab is always staffed by math faculty, they will also be able to help proctor, on a limited basis, retakes of online quizzes in mastery learning that some sections of the pilot are using. The mastery quizzes help provide more uniform standards. MathXL is also part of the hybrid Intermediate Algebra that we teach. Also, one instructor has been using Math XL in a regular Intermediate Algebra course, and others intend to do so in the coming semesters.

Why is this equipment necessary?

- [ ] Immediate health, safety, or security issues
- [x] Replaces deteriorated equipment or facilities
- [ ] Increases enrollment
- [ ] Shows cost advantage due to rising prices
- [ ] Prevents further deterioration of facilities
- [ ] Provides visibility for the Bond Program

Briefly describe how the above criteria are satisfied:

The Math Lab originally had 4 computers in them. They were taken away without replacement. We are seeking replacements plus four more computers.

What is the consequence of not funding the equipment?

Students doing work on MathXL have no access to drop-in tutoring help at Math Lab unless they run back and forth between the Math Lab and the computer lab.
What alternative approaches have been considered to meet programmatic demands for this equipment?

Students can print their online problems and take them to the Math Lab. However, this is impractical for students. An assignment with 60 problems can take about 15 pages, which costs 10 cents per page to print. They have to run between labs. When they return to the computer, if they still don’t get it and keep getting the problem wrong, the computer generates a new problem for the students, and they have to print or copy down the problem to return to Math Lab again.

How many students will be impacted by the purchase of this equipment?
The census for Spring 2008 shows 280 students total in regular and hybrid sections of Elementary and Intermediate Algebra who use MathXL. As we expand the use of the online software, it will impact more basic skills math students.

Do students use this equipment?  ___x___ yes  ____ no

Is this equipment a replacement?  ___x__ yes (partly)  ____ no

Staffing requirements for new equipment  (number of staff, are they available, training, etc.): None, as Math Lab is already staffed

Will training be required?  ____ yes  ___x__ no

At whose cost?

What are the estimated ongoing costs  (for maintenance, etc.)?  Just ordinary computer maintenance.

Are there potential utility costs/savings?

Is this request CTE (Career Technical Education) Eligible?  ____ yes  ____ no
**Unit Plan: Equipment Requests [Acct. Category 6000]**

**Unit:** Mathematics  
**Division or Area to Which You Report:** Science & Mathematics  
**Author(s) of this Unit Plan:** Joe Berland, Indrani Chaudhuri, Ming Ho, Anita Wah, Matt Davis, Marcia Kolb, Doris Hanhan, Milton Rube, Jonathan Traugott  
**Date:** 3/14/08  
**Audience:** Budget, Deans  
**Purpose:** To be read and responded to by Budget Committee.  
**Instructions:** Please fill in the following as needed. Text boxes below will expand as you type.  
Please note: this form is for equipment whose unit cost is over $200

**Brief Title of Request (Project Name):** Computer Lab 3906

**Building/Location:** Room 3906

**Request Amount (include unit cost, total cost, tax, and shipping):**

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hitachi CP-X605 projector</td>
<td>$2575</td>
<td>$1457</td>
</tr>
<tr>
<td>spare lamp</td>
<td>$435</td>
<td>$124</td>
</tr>
<tr>
<td>mounting/security cage</td>
<td>$525</td>
<td>$100</td>
</tr>
<tr>
<td>cabling</td>
<td>$300</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>$3835</td>
<td>$1681</td>
</tr>
<tr>
<td>Tax (assume 8.5%)</td>
<td>$326</td>
<td></td>
</tr>
<tr>
<td>Shipping</td>
<td>$200</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$4261</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Description of the specific equipment or materials requested:**

1. Computer projector to be mounted on the ceiling  
2. 1 Instructor computer station attached to the computer projector (Can be omitted if we convert a student station in the lab to an instructor station.)

**What educational programs or institutional purposes does this equipment support?**

Math, computer science, and anyone on campus who uses Room 3906 for instruction. For instance, online courses outside of our division have used the room for orientation meetings.
Briefly describe how your request relates specifically to the Educational Master Plan and the Goals and objectives Section of your Unit Plan (Part II, Section 2)?

On p45 of the Education Master Plan under Academic Services, the college wishes to develop model classrooms for pilot and provide sufficient number of “smart” classrooms. Even though we now have four model classrooms, they are scheduled for specific classes like any other room. There is currently no instructional lab available on campus for instructors who would like to incorporate instructional use (not presentation use) of computers as part of student class activities. To do so requires an instructional lab. By simply having an instructor's workstation in the current Computer Lab 3906, we can partly meet such need for the campus.

One of the goals to be achieved in the next ten years, as stated on p. 13 of the Master Plan, is to enhance the college's image in the community. It is ironic that our computer lab does not have a computer projector, which seems like a standard equipment to have for computer lab, like chalk is in a regular classroom. Having a substandardly furnished lab gives a poor impression of Chabot College to students. When Marketing was asked to make some flyers for the Math department, Susan May was insistent on using color printing on nice paper for it or she wouldn't fund it out of her budget because she said that it was important to present a good image of Chabot to students. If it is important to do so for students we don't yet have, then surely we must do at least as much for students who are already here. Not only is there instructional impact, having an under-equipped (not just minimally-equipped) lab gives students the impression that they are attending a second-rate college, especially since the lab is in the division housing computer science and engineering.

This request relates to Goal/Objective #4 in Part II Section 2 of this Unit Plan.

Why is this equipment necessary?

_____ Immediate health, safety, or security issues
_____ Increases enrollment
_____ Prevents further deterioration of facilities
_____ Replaces deteriorated equipment or facilities
_____ Shows cost advantage due to rising prices
_____ Provides visibility for the Bond Program

Briefly describe how the above criteria are satisfied:

The new projector fills in the slot on the ceiling where the previous projector was mounted. The computer station plugs into the slot on the wall created for projection.
What is the consequence of not funding the equipment?

Without the instructor station and a mounted projector, instructors waste time requesting a computer cart from Media Services and setting up the equipment, as Media Services does not do so. The set up is especially difficult in 3906 because the cart has really bulking wheels and the maneuverable space in which to place the equipment is very limited, as the rows of computers are in the way. The lack of permanent computer set up discourages appropriate use of technology for instruction and student activity.

What alternative approaches have been considered to meet programmatic demands for this equipment?

We are currently asking Media Services to bring computer carts to 3906, but instructors have to set it up themselves, which is not easy in 3906 because of space and hardware issue. There is also no alternative approach to the poor image that Chabot projects to students when the lab is under-equipped, which is worse than the typical high school computer lab these days. Our young students must perceive Chabot College as a step down from their high schools in this respect.

How many students will be impacted by the purchase of this equipment? _______

Do students use this equipment? _____ yes ______ no

Is this equipment a replacement? _______ yes ______ no

Staffing requirements for new equipment (number of staff, are they available, training, etc.):

Will training be required? _______ yes ______ no

At whose cost?

Training is going to be very minimal with practically no cost, because a permanent computer station would be used by instructors like their office computer. Most people can figure out how the projector works with the computer with a handout. Since the computer lab is staffed, the staff can easily help.

What are the estimated ongoing costs (for maintenance, etc.)?

Spare Lamp every so often. Unit cost is $435.
Are there potential utility costs/savings?

Is this request CTE (Career Technical Education) Eligible?  _____ yes  _____ no
**Unit Plan: Supplies & Services Requests [Acct. Category 4000 and 5000]**

**Unit:** Mathematics  
**Division or Area to Which You Report:** Science & Mathematics  
**Name of Person Completing this Form:** Ming Ho  
**Date:** March 14, 2008

**Audience:** Budget, Deans  
**Purpose:** To be read and responded to by Budget Committee during the Fall Semester.  
Please note: this form is for budget items such as maintenance requests, equipment, supplies, Contractual Services, etc.

**Instructions:** Please fill in the following as needed. Text boxes will expand as you type. If necessary, feel free to continue your list onto a second page by adding additional rows. Budget Item Descriptions should include estimates of the per unit cost as shown in the example below. If you have questions about estimated cost and/or the criteria of each of the funding sources, please consult your dean or a Budget Committee member.

| Organization: | Math  
|----------------|----------------  
| Org. Number: | Department/Program |

<table>
<thead>
<tr>
<th><strong>Budget Item Description</strong></th>
<th><strong>Funding Source</strong></th>
<th><strong>Total Cost ($)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer projector bulb for Math computer cart (Consumable) – 1 @ $450</td>
<td>General Fund (X)</td>
<td>450</td>
</tr>
<tr>
<td>MyMathTest (Consumable) – 700 @ $6.80</td>
<td>CTE* (X)</td>
<td>4760</td>
</tr>
</tbody>
</table>

* Career Technical Education
Unit Plan – PROPOSAL FOR NEW INITIATIVES

**Unit:** Mathematics  
**Division or Area to Which You Report:** Science & Mathematics  
**Name of Person Completing this Form:** Anita Wah  
**Date:** March 14, 2008  

**Audience:** Deans/Unit Administrators, IPBC, Foundation, Grants, Budget,  
**Purpose:** A “New Initiative” is a new project or expansion of a current project that supports college goals. The project will require the support of additional and/or outside funding. The information you provide will facilitate and focus the research and development process for finding outside funding.  
**Instructions:** Please fill in the following information.

**Priority Objective** or **Strategic Plan Objective** Addressed:

**Objective:** (include goal/objective number from Part II of your Unit Plan for reference)

- To integrate all components of the developmental mathematics program: assessment, placement, remediation, review, and coursework.  
- To encourage students to persist until they have successfully completed all their pre-college coursework  
- To provide students with learning assistance, and frequent opportunities for feedback, review, and reassessment.  
- To create consistently high standards of achievement throughout the developmental math course sequence.

The goals and objectives for the developmental math program are delineated in Goal/Objective #1 of Part II Section 2 of this Unit Plan.

**Project Description:**

A teaching lab with computers will be created for developmental mathematics students. While there is open lab space available for these students in 3906, this lab does not function well as an instructional lab and cannot meet the expanding needs of the developmental math project.

The following activities would take place in the lab:

1. Students who were entering Chabot College for the first time or who had had a lapse of more than one year since their last math course would be assessed using MyMathTest. Recommendations would be made for study, review, and course placement.
2. After assessment, students would have the option of attending a short review course that would be conducted partly in the lab.
3. Students in master-learning (“L”) sections of Math 105, 65, 55, and 54 would attend labs to do homework and extra practice with Math XL or MyMathLab.
4. As space allowed, students would use the lab to work independently on Math XL, doing homework or practice quizzes.
5. Students would take proctored quizzes using Math XL.

**Staffing:**

The lab will be staffed with an instructional assistant who will schedule lab classes, assist instructors with lab classes, schedule and proctor assessments, and help students with who are working in the lab independently.

Instructors and tutors (supplementary instructors) will also staff the lab to teach and assist with review courses and lab sections.
Expected Outcome:
In the long run, this should improve success rates among our mathematics students. In the near term, it should increase the rate at which motivated but under-prepared students can progress through their pre-college courses.

Activity Plan to Accomplish the Objective:

<table>
<thead>
<tr>
<th>ACTIVITY NO.</th>
<th>ACTIVITY (simple description)</th>
<th>PERSON(S) RESPONSIBLE</th>
<th>TIMELINE (OR TARGET COMPLETION DATE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Allocate space for lab.</td>
<td>college administration</td>
<td>January 2009</td>
</tr>
<tr>
<td>2</td>
<td>Purchase computers and software and set up lab.</td>
<td>Developmental Mathematics Coordinator</td>
<td>summer 2009</td>
</tr>
<tr>
<td>3</td>
<td>Hire instructional assistant.</td>
<td>Developmental Mathematics Coordinator</td>
<td>summer 2009</td>
</tr>
<tr>
<td>4</td>
<td>Set up lab. hire and train instructional assistant, develop create lab protocols, orient staff to lab.</td>
<td>Developmental Mathematics Coordinator</td>
<td>summer 2009</td>
</tr>
</tbody>
</table>

Resource Requirements:

<table>
<thead>
<tr>
<th>ACTIVITY NO.</th>
<th>BUDGET CATEGORY AND ACCOUNT NUMBER</th>
<th>DESCRIPTION</th>
<th>COST</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Personnel (staffing and benefits for professional experts, reassigned time, classified personnel).*</td>
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<td>Supplies</td>
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<td>Other</td>
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<td></td>
<td>Total</td>
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</table>

Proposed personnel workload may be covered by:
- New Hires: Faculty # of positions ____________
- Classified staff # of positions ________
- Reassigning existing employee(s) to the project; employee(s)’ current workload will be:
Covered by overload or part-time employee(s)
Covered by hiring temporary replacement(s)
Other, explain __________________________________________________________________

At the end of the project period, the proposed project will:
Be completed (onetime only effort)
Require additional funding to continue and/or institutionalize the project (obtained by/from):
_________________________________________________________________________________

Will the proposed project require facility modifications, additional space, or program relocation?
No ☐   Yes ☐

Will the proposed project involve subcontractors, collaborative partners, or cooperative agreements?
No ☐  Yes ☐

Do you know of any grant funding sources that would meet the needs of the proposed project?
No ☐  Yes ☐

Yes, list potential funding sources: