Complete the following sections:

1. 250 word description of the proposed project. Include data supporting the need for the project. (20pts)

In the fall of 2010, UHMC implemented a developmental math course redesign using the Emporium model. In the fall 2010 semester, 29% of those completing quiz 1 successfully completed MATH 18 while 59% of those completing quiz 1 successfully completed MATH 82. In the spring 2011 semester, 28% of those completing quiz 1 successfully completed MATH 18 while 52% of those completing quiz 1 successfully completed MATH 82. The weekly progress reports for MATH 18 and 82 are sent as additional attachments with this proposal. Comparisons between Week 10 and Week 9 data reflect that students dropped the course as this included the last date to drop the course with a W option. We are using the data for the students who have taken quiz 1 as we have people listed in our MML data (tutors, instructors, etc) who are not taking the course but need the access to MML. We feel that since the first quiz is during the first week of the course, a serious student would have completed at least the first quiz of the semester. These courses are self-paced, but with a deadline. The students tend to put off until the end of the semester their work so it becomes quite busy at the end of the semester. This semester it has been significantly busier throughout the semester than it was last year.

In an attempt to increase these success rates, several policy changes were made including increasing the required Math Lab commitment from 1.25 hours per week in each course to a minimum of 2 hours per week for MATH 18 and a minimum of 3 hours per week for MATH 82. As a result, the first week of the fall 2011 semester found the Math Lab demand greater than we what could provide with students signing up on waitlists and waiting in the hallway for available computer space. This was not unexpected as our consultant John Squires had recommended we provide a math lab of 60-90 computers which is much larger than what we were able to provide with a 48 computer math lab.
We increased the hours of the Math Lab to include additional time on Friday and initiating the Math Lab on Saturdays from 9:00 to 3:00. This has helped alleviate the initial overcrowding of the lab. Experience has shown that the last month of the semester, the lab usage increases as students rush to complete their work.

In order to meet the student demand for lab availability UHMC is requesting funding to provide the additional human resources needed to expand Math Lab availability for the Kahului campus as well as our outreach sites at Moloka'i, Lana'i (who will be providing these courses for the first time spring 2012) and Lahaina. Due to filled classes and students being turned away due to closures, we are requesting support to add two classes on Saturday.

2. Refer to research that influences or serves as foundation for the project. (10pts)

The National Center for Academic Transformation supports the underlying principle that students learn math by doing math, not by listening to someone talk about doing math. Interactive computer software combined with personalized, on-demand assistance and mandatory student participation are the key elements of success. NCAT calls this model for success, the Emporium Model, named after what the model's originator, Virginia Tech, called its initial course redesign

3. List partners in the CC system or explain how the design lends itself to export. (10pts)

UHMC has revised all developmental math courses using the Emporium Model. UHMC anticipates that recent policy changes and increased student engagement will result in improved success rates. The redesign lends itself to export as the courses are created in a coordinator course which can be copied by other campuses. UHMC will make available to other campuses the syllabi, syllabi agreement along with the recommended calendar that students follow in order to complete the course in one semester. UHMC is available to meet with others concerning the logistics used in our decision making along with the challenges that we have faced.

4. Refer to the Campus and the System strategic plan section that demonstrates the relevance of this project. (10pts)

- Hawai'i Graduation Initiative
  - Increases undergraduate, graduate and professional degrees and certificates awarded by 25% (2008-2015)

- From the UHMC strategic plan:
  - Educational Effectiveness and Student Success
  - 1.1.4 Engage students in active learning
5. Discuss how this project will sustain itself after system funding ends. (10pts)

The projected increase in student tuition will support this program based on its effectiveness in promoting student success. As students pay for 3 or 4 credit classes while faculty are paid for 2 credits (they are not being asked to create course materials, create and grade homework, quizzes and exams, or hold office hours although they are expected to communicate often with students via email). With student success records based on having math lab availability, the moneys saved on faculty pay may be used to cover the additional costs involved in providing a staffed math lab.

6. Indicate the way in which the success or failure of the project will be visible through measurable and reportable outcomes. (25pts)

By comparing 2010-2011 data with 2011-2012 data, an increase in the percentage of students successfully completing these courses can be observed. These results should be directly related to changes made in course policy requirements along with the greater availability of UHMC math computer lab hours. The goal of increasing the required number of math lab hours is to increase student engagement with math. By increasing engagement we expect to increase student success. Students need to have the math lab available at the times convenient for their schedules and need to have enough computers available so that they are not waiting to find an available computer.

It is anticipated that the demand for college level math courses and consequently graduation numbers in the future will also increase. For example, in 2009, we offered MATH 103 for the first time at UHMC with 20 students enrolled. This spring semester we are offering 4 classes of MATH 103 due to the 3 classes offered in the fall 2011 semester being heavily waitlisted and not being able to meet the demands for these students. Greater successful completion of college level math courses should be a result of greater successful completion of developmental math courses.

Our goal is to increase the number of students who successfully passed MATH 18 during the academic year 2011-2012 by 10%, from 278, academic year 2010-2011, to 305 students. Our goal is to increase the number of students who successfully passed MATH 82 during the academic year 2011-2012 by 10% from 314, academic year 2010-2011, to 345 students.

7. Describe how this project reduces time to certificate or degree for students. (15pts)

The math course redesign as implemented has made it possible for students to complete the developmental math pathway in two semesters (MATH 18 and MATH 82) rather than the four semesters (MATH 1, MATH 22, MATH 23 and MATH 25)
previously needed by many students. Students completing this sequence are also exiting with stronger math skills as now all students will be having the content of the former MATH 25 course required for entrance into college level math courses. One of the impacts we are already observing is a greater demand for MATH 103 College Algebra. This course redesign saves time for those students who previously completed MATH 100 or MATH 115 only to realize they needed to complete MATH 103 and/or MATH 135. In the past, these students would have had to go back to complete MATH 25 (developmental course) after taking college level courses in order to be prepared for MATH 103, since MATH 100 and MATH 115 were not and are not prerequisites for college level algebra. The process created frustrated students who either didn’t want to enroll in a developmental math course following successful completion of a college level math course, or enrolled in MATH 103 without adequate preparation.

8. Include a signature page that indicates the proposal was approved by the campus’ Chief Academic Officer.

9. Budget

Maui Faculty (2 additional Saturday classes) $ 5052 + $423 (8.37% Fr.)
Student Tutors Kahului (40 hours at $10/hour for 15 weeks) 6000 + $31 (0.52% Fr.)
Faculty (1 credit per site (4 sites) to open lab additional 3 hours per week 5052 + $423 (8.37% Fr.)
Student Tutors Molokai, Lanai, Lahaina (10 hours per site at $10/hour for 15 weeks 4500 + $283 (0.52% Fr.)

Total $20,604 + $900 = $21,504

The campus is committed to sustaining the project in year 2 if evidence of its success is warranted and funding is available.

Signed:

__________________________
Chancellor

__________________________
Vice Chancellor of Academic Affairs

__________________________
Date

__________________________
[Signature]

12-8-11
Date
Criteria

- Projects receiving between 80-100 points will be supported for funds.*
- Projects receiving 60-79 points will have an opportunity to revise and resubmit.
- Projects receiving below 60 points will not be supported for funds.

*final approval of projects made by VP Morton

Application deadline is 9/30/2011. Send electronic project proposals to ksmith@hawaii.edu.