To: Samantha Schwartz, UHMC
From: John Morton, Vice President for Community Colleges
Subject: FY 2013-14 Innovative Developmental Education Initiatives

May 10, 2013

The UHCC system is pleased to support the project, "Increasing Student/Faculty Engagement," in the amount of $64,758.00. The project focuses on increasing student engagement in Emporium model developmental math classes through the use of peer mentors and video-taped lessons and lectures created by faculty teaching the classes. The reference number for your project is M-1.

The project funding is subject to the following requirements:

1. Proposer submit a revised proposal for approval by June 1, 2013, which clarifies the copyright issues for the videos (language that confirms the fact that the videos belong to the UHCC System and that sharing of the videos with other campuses would be permitted) and shows the relevance of the cited research to the project. The revised approval should be emailed to Gayle Ishii (gaylei@hawaii.edu) with a copy to Suzette Robinson (suzetter@hawaii.edu) and Laurie Kuribayashi (laurieak@hawaii.edu).

2. Implementation will occur in AY 2013-14.

3. All funds must be expended, not just encumbered, by June 30, 2014.

4. The project final report (in the form attached) must be submitted in electronic form to Gayle Ishii (gaylei@hawaii.edu) with a copy to Suzette Robinson (suzetter@hawaii.edu) and to Laurie Kuribayashi (laurieak@hawaii.edu) not later than September 30, 2014.


Tuition and Fee Special funds will be transferred to your campus for this project after July 1, 2013.

Based on the information provided in your final report, funds may be re-purposed. The project proposal and reports will be published on the UHCC website.

Thank you for your work in developing innovations to increase student success in developmental education. We look forward to working with you as the project unfolds.

cc: Clyde Sakamoto, Chancellor
     Peter Quigley, AVPAA
     John McKee, VCAA
     David Tamanaha, VCAS
     Cindy Yamamoto, Fiscal Officer
     Suzette Robinson, Director for Academic Programs
     Gayle Ishii, Academic Support
     Lisa Tsumako, Budget Specialist
     Laurie Kuribayashi, Developmental Education Committee Chair

Att: Final Report template
Developmental Education Project Proposal Form - *With Revisions (in green & italics)*
2013-2014

College: University of Hawaii Maui College

Project Title: Increasing Student-Faculty Engagement

Proposer's Name and email address: Samantha Schwartz ss30@hawaii.edu

Proposal Period: August 2013 – May 2014

Complete the following sections:

1. **Project Summary** (15 points)

   In the Fall of 2010, UHMC implemented a developmental math course redesign using the Emporium model. While our success rates for MATH 18 and MATH 82 for Fall 2012 were up 13% and 7% from Spring 2011 respectively, we are still well below our goal.

   In response to the low success rates, faculty created a survey to administer to all students enrolled in a developmental math course at any of the UHMC campuses. We received 216 responses from a mix of MATH 18 and MATH 82 students in Fall 2012. Through the data gathered in this survey, we found that students crave access to peer mentors in the classroom. 39% of students who responded said that they feel two mentors plus their instructor would be the ideal learning environment. This need was also confirmed by members of other departments on campus who observed developmental math classes and reported that students often wait several minutes with their hand raised before the instructor is able to get to them.

   49% of students also indicated through this survey, that they feel they would be more successful with live instruction in addition to computer instruction.

   **There are some challenges that the math department faces when trying to meet the need of increased student engagement.**

   1) Students have to wait too long to get help from their instructor in a class of 20.
   2) The math department on the Kahului campus primarily has the use of two classrooms and the Math Lab. There are five full time instructors and several lecturers. Additionally, students at the developmental level tend to have a hard time taking notes effectively while listening to a lecture.
   3) The video lectures that come with the textbook in MyMathLab are done by the author of the book, but, as we know, meaningful engagement with instructors promotes student success.
We can see three major solutions to increasing student engagement and therefore success in Developmental Mathematics at Maui College.

1) Adding two mentors in each class would increase response time drastically. Early success promotes motivation. The Community College Survey of Student Engagement (CCSSE), indicates that Student Effort is one of the 5 major benchmarks related to retention and academic measures.

2) SMART boards would be the ideal medium for presenting mini lectures at the start of each class. Lessons could be pre-made and uploaded to the SMART board. Notes that are shared with students could be saved and later emailed to the class, so this would be an added benefit to help increase their success. SMART notebook Math Tools Software would enable the instructor to use proper mathematical symbols and more.

3) In order to promote meaningful engagement between students and faculty, it will be important to create video lectures which are done by the faculty who are actually teaching the classes. Camtasia is a video-creating software which allows for short embedded quizzes throughout the lecture. This temperature check is important for students who are watching these lectures outside of class. Additionally, it is compatible with Pearson’s MyMathLab and MyLabsPlus, and it has been used in this fashion with success.

2. Effectiveness Indicators/Outcomes and Benchmarks (15 points)

We will have two effectiveness indicators by which we measure our success.

1) Increase the number of students completing both MATH 18 and MATH 82 in one semester by at least 15% from AYE 2013 to AYE 2014. We will calculate this number by running a report through MyLabsPlus at the end of AYE 2013 as our benchmark.

2) Increase the success rates in both MATH 18 and MATH 82 by 10% by the end of AYE 2015, when the videos will be implemented. Again, we will calculate this number by running a report through MyLabsPlus at the end of AYE 2013.

3. Background Research (5 points)

The National Center for Academic Transformation supports the underlying principle that students learn math by 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. *Placing 2 student mentors in each classroom, will allow for more on-demand, just-in-time assistance for every student.*
John Squires, a national leader in course redesign, has been creating his own videos for over 20 years with great success. John is a strong believer in faculty taking ownership of their program, and this is one way that he has had success doing that. When he first began creating videos, John actually had students going out of their way to thank him. John Squires has seen a 14% increase in student success since before his redesign. We will be incorporating John Squires’ best practices for online instruction when creating these videos. He uses Camtasia, PowerPoint, and a Bluebird Snowball microphone along with a Toshiba Tablet PC to create his videos.

MyMathLab expert, George Woodbury, has used Camtasia with success to create video lectures to accompany MyMathLab. He suggests purchasing a high-quality microphone with a pop filter because in his experience, poor sound can cause students to think the videos are not good.

The Community College Survey of Student Engagement (CCSSE), indicates that student-faculty interaction is one of five benchmarks which directly relate to student outcomes. “Like other benchmarks, student-faculty interaction was correlated with number of terms enrolled and credit hours completed. Further, it was correlated with GPA” in 2 out of the 3 studies. Additionally, as stated in Student Engagement and Student Outcomes: Key Findings from CCSSE Validation Research by Kay McClenneny, C. Nathan Marti, and Courtney Adkins, “the results indicate that the student-faculty interaction benchmark is related to both academic and persistence outcomes.” (pg. 5) <http://www.ccsse.org/aboutsurvey/docs/CCSSE%20Validation%20Summary.pdf> It is our experience that students feel a disconnect between their instructors and the presentation of the currently used video lectures. If students have the familiarity between their instructors and the video lectures, they will be more likely to engage in all aspects of the Emporium style class. It is our intention that if students are watching videos made by instructors they see in the classroom and the Math Lab, students will feel more connected to the faculty and to the lecture.

4. Relationship to Campus and UHCC Strategic Plans (5 points)

This project will support both the UHMC and the UHCC Strategic Plans in the following ways:

- 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
  - 1.1.12 Provide services including tutoring that increase student retention and success in a learning-centered environment
5. **Scalability (5 points)**

We plan to report on our successes at venues such as the Hawai‘i Strategy Institute when campuses meet to share best practices. Because our videos will be online, it will be easy to share our videos with other UHCC’s as models for other instructors to use as they create their own videos. SMART Board technology is widespread and requires no special training, and Camtasia is the industry standard for instructor created video. Even without the benefit of SMART boards, other campuses can still use our videos as models and implement what they learn about student-faculty interaction. *The videos we create will belong to the UHCC System, and sharing of the videos with other campuses will be permitted.*

6. **Sustainability (5 points)**

Once the section videos are created, they can be utilized for many years to come. Even as new editions of the textbook become available, the video lectures will still be relevant. Without the need for release time, we can update one or two videos at a time as needs for updates occur and new best practices emerge. The SMART boards can be used for many years to come. Notes saved from SMART board presentations can be compiled onto a campus website so that students can access notes from other instructors’ lessons in addition to their own. The website will be created using free software and can be updated and maintained each semester. Our campus administrators have pledged to support any meaningful practices that improve student success rates, especially at the developmental level. Once having two mentors in each class shows an increase in success, the math department is willing to raise the cap for MATH 18 and MATH 82 students from 20 to 22, since the additional mentors would allow us to maintain effective instruction with the additional students. This increase in tuition, ($600+ for each MATH 18 class and $800+ for each MATH 82 class) will be enough to sustain having 2 mentors in each class, with money to spare.

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

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Chancellor

Date

Vice Chancellor of Academic Affairs

Date

8. **Budget**
<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation for 2 faculty for video creation</td>
<td>$9,336</td>
</tr>
<tr>
<td>(3 credit hours each @ $1,556 per credit)</td>
<td></td>
</tr>
<tr>
<td>Camtasia</td>
<td>$250</td>
</tr>
<tr>
<td>Bluebird Snowball Microphone + pop filter</td>
<td>$120</td>
</tr>
<tr>
<td>PowerPoint</td>
<td>$150</td>
</tr>
<tr>
<td>Toshiba Tablet PC</td>
<td>$2,000</td>
</tr>
<tr>
<td>Student Tutors Kahului (28 classes per semester gives 84 hours per week at $10.40/hour for 34 weeks)</td>
<td>$29,702.40</td>
</tr>
<tr>
<td>Student Tutors Molokai, Lanai, Lahaina, Hana (10 hours per week per site at $10/hour for 34 weeks)</td>
<td>$13,600</td>
</tr>
<tr>
<td>SMART boards with stands (3)</td>
<td>$9000</td>
</tr>
<tr>
<td>SMART Notebook Math Tools (3)</td>
<td>$450</td>
</tr>
<tr>
<td>Pen sets (3)</td>
<td>$150</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$64,758.40</strong></td>
</tr>
</tbody>
</table>
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FEB 20 2013
Date

FEB 14 2013
Date

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Pen sets (3) $150
Total $64,758.40
SIGNATURE PAGE
AY 2013-14 UHCC Developmental Education Project Proposal
Deadline for Proposal Submission: 12:00 p.m. on February 21, 2013

Project Title: Increasing Student-Faculty Engagement Date: 2/21/13
College: UHMC Proposer's Name: Samantha Schwartz
Budget Request: $1,758.40

Certification by Proposer
I certify that I have consulted with and submitted this proposal in a timely manner to the appropriate (A) institutional research office, (B) business office, and (C) human resources office for review of all assessment, budget, and resource commitments. Outcomes have been reviewed and are appropriate for the proposal. I understand I will have primary responsibility for monitoring any funds awarded and agree to maintain accurate and current records of expenditures consistent with the attached budget.

Signature: [Signature] Date: 2/21, 2013
Name: Samantha Schwartz
Title: Instructor

Confirmation of Support by Dean or Division Chair
I have reviewed and support this proposal.

Signature: [Signature] Date: 2/21, 2013
Name: Bruce Butler
Title: Dean of OR Division Chair of STEM

Confirmation of Campus Approval by Chancellor or Vice Chancellor of Academic Affairs
The campus approves the proposal and is committed to advance the amounts, if any, described in the proposal as being funded by the campus and is committed to sustaining the project if evidence of its success is warranted and funding is available.

Signature: [Signature] Date: 2/21, 2013
Name: John McKee
Title: Chancellor OR Vice Chancellor of Academic Affairs

Attachment 1
UHCC Developmental Education Project Proposal Form

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