September 10, 2014

To: Ron Umehira, Leeward Community College

From: John Morton, Vice President for Community Colleges

Subject: AY 2014-15 Part Time Student Innovation Projects

The UHCC System is pleased to support your project, “Accelerating and Supporting Part-Time AMT and CULN Students to Meet New Requirements” in the amount of $33,270.00. The project focuses on increasing part time students’ enrollment and degree completion by accelerating students’ completion of transfer-level math courses.

The project funding is subject to the following requirements:
1. Implementation will occur in Academic Year 2014-2015.
2. All funds must be expended, not just encumbered, by June 30, 2015.
3. 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 Cory Ando (cando@hawaii.edu) not later than September 30, 2015.

The final report should outline:
2. Results on the measurable outcomes compared to baseline data identified in your application.
3. Data aggregated by those students who were part time versus full time.

Tuition and Fee Special funds will be transferred to your campus for this project after July 1, 2014. Any adjustments to the budget submitted in your proposal must first be approved by Cory Ando and Suzette Robinson. The project proposal and reports will be published on the UHCC website.

Thank you for your work in developing innovations to increase student success amongst students enrolled at the part time level. We look forward to working with you as the project unfolds.

ec: Manny Cabral, Chancellor
    Peter Quigley, AVPAA
    Mike Pecsok, VCAA
    Mark Lane, VCAS
    Cecilia Lucas, Fiscal Officer
    Suzette Robinson, Director for Academic Programs
    Gayle Ishii, Academic Support
    Lisa Tshuhako, Budget Specialist
    Cory Ando, Part Time Initiative Committee Chair

Att: Final Report template
FY 2015 UHCC Project Proposal Form

☐ ATD  ☐ Developmental Education  ☐ Financial Aid  ☑ Part Time Student Initiative

SCAN AND SUBMIT PROPOSAL WITH REQUIRED SIGNATURES BY: April 12, 2014

Date: May 15, 2014          REVISION DATE: July 17, 2014

Project Title: Accelerating and Supporting Part-Time AMT and CULN Students to Meet New Requirements

Budget Request: $33,270

College: Leeward CC

Proposer’s Name: Darci Miyashiro

Proposer’s Email Address: darcim@hawaii.edu

**PART 1 PROPOSAL**

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Pts</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project Summary</td>
<td></td>
<td>The Leeward CC AS in Culinary Arts (CULN) and AAS and CA in Automotive Mechanics Technology (AMT) programs have recently changed their respective general education quantitative reasoning requirements to include contextualized transfer-level courses (MATH 100C and QM 107C) that are more rigorous and have greater prerequisites than the courses they replace.</td>
</tr>
<tr>
<td>Guidelines: Concise description of project, including the following:</td>
<td></td>
<td>While the increased requirements will not adversely affect future high school graduates who will benefit from full implementation of the K-12 Common Core Mathematical Standards, part-time students, who made up 34.9% of Leeward CC's first-time students and 46.7% of Leeward CC's classified students in fall 2011, are inordinately affected by both initial placement and by access to support once enrolled in the course.</td>
</tr>
<tr>
<td>Actions to be taken and resources needed</td>
<td></td>
<td>This proposal consists of two related projects that will accelerate automotive technology (AMT) and culinary arts (CULN) students into the newly-created contextualized quantitative courses that meet their degree and certificate requirements and provide them with the support needed to be successful in the first attempt at the course. In this way, AMT and CULN students can take and complete their quantitative reasoning course in their first semester, as recommended or required by their respective programs.</td>
</tr>
<tr>
<td>Data supporting need for project (no attachments)</td>
<td></td>
<td><strong>Question #1</strong> from Cory Ando's email message dated 7/3/14 – “What percentage of Leeward CC's AMT and CULN students are part time?”</td>
</tr>
<tr>
<td>Explanation of how project reduces time to certificate or degree</td>
<td></td>
<td>In 2013 - 2014 the AMT and CULN programs consisted of a large percentage of part-time students. The AMT program was composed of 41.1% part-time students in the fall and 45.4% in the spring. The CULN program was composed of 50.8% part-time students in the fall and 50.6% in the spring.</td>
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<tr>
<td>Prior year's outcomes for continuation projects</td>
<td></td>
<td>The Summer Bridge Program will aim to help new students interested in AMT or CULN whose COMPASS placement fall below program-required college-level quantitative</td>
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</table>


courses. Returning students, whose degree or certificate progress may be delayed by
new course requirements created when the respective degree programs were recently
revised in response to an ACCJC recommendation, would also be welcomed and
recruited.

The Supplemental Support program will provide specialized assistance to AMT and
CULN students to promote completion of their respective quantitative reasoning
requirement in their first year and on the first attempt. In fall 2014, MATH 100C and QM
107C will be offered for the first time as permanent and not experimental courses. It is
vital for all students, and especially those who qualified for their course through the
Summer Bridge, to be continuously and properly supported so they complete their
program’s quantitative reasoning requirement in their first year and on the first try.

**Actions to be taken**

In Summer 2014, math practice sessions will be held in the afternoons in the Math Lab
temporary location and will be facilitated by ten existing laptops and nine additional
computers that require upgrading due to obsolescence and sub-par reliability (9 x $2,000
= $18,000). The Math Lab will be staffed with two student assistants (2 Tutors x $10/hr
x 15 hrs/wk x 7 wks = $2,100), who will provide support with the tutorial software and
will help students review the more challenging concepts and procedures.

When a student completes all the requirements of the Summer Bridge program, they will
be waived into the next class level without having to re-take COMPASS. This is possible
because of the collaboration between instructional and academic support personnel in
planning the project.

In fall 2014 and spring 2015, two trained student assistants (Training: 2 tutors x 10 hrs x
$10/hr x 2 semester = $400), one assigned to MATH 100C and the other assigned to
QM 107C, will attend their designated course to take notes, and hold scheduled
study/ review sessions on a daily basis in the Math Lab, at an annual cost of $9,600 (2
Tutors x 15 hrs/wk x $10/hr x 16 wks x 2 semesters = $9,600).

These student assistants will take class notes with (4) LiveScribe pens and notebooks
($300 ea. x 2 tutors x 2 semesters = $1,200). The LiveScribe pens and notebooks allow
the tutors to upload their notes online and record audio from the lecture. This note taking
system will be particularly beneficial to part-time students who will both be able to tailor
their class time activities to their learning style while knowing the notes and lectures will
be available for later download and review and will reduce the disruption that a missed
class (due to non-academic commitments) might cause.

In May and June of 2015, the Math Lab will offer another Summer Bridge Program that,
pending funding availability, would continue through August, 2015 (3 hours per day x 25
days x $10 per hour x 2 tutors = $1,500).

**Data supporting need for project**

Both the AMT and CULN programs recommend taking the respective quantitative
reasoning course in the first semester; however, this is not feasible if students do not
qualify for their respective courses. COMPASS placement test statistics suggest that
most new students would not. A UHCC and ACT comprehensive analysis of COMPASS
and course success data estimated a maximum accuracy rate of 56% when using a
COMPASS pre-algebra score to place students at the level of QM 107C under a C or
better standard. A similar analysis indicated that the accuracy rate when using a
COMPASS algebra score to place students at the MATH 100C level under a C or better
standard could not be calculated. Due to COMPASS placement scoring errors, we
expect to see more students to be underplaced rather than overplaced.

The handicap of lower-than-appropriate initial placement affects part-time students more negatively than it does full-time students. Full-time students generally have more flexibility in scheduling classes while part-time students often fit classes around their non-academic schedules. This partially explains the significantly lower credential attainment rate for part-time students compared to full-time students.

In addition, taking and passing prerequisite courses then persisting to the next semester is far from a given. MATH 18 has an overall passing rate over 70%; however, only around 55% of those who pass MATH 18 take a subsequent course within an academic year. MATH 82’s passing rate is 57% overall; however, less than 40% of students passing MATH 82 register for a subsequent course within an academic year.

For the CULN program, the new requirement effectively added a prerequisite semester to most students’ program. Prior to the program change, the quantitative course requirement, MATH 50H, carried a prerequisite of MATH 18 or COMPASS prealgebra 30. The new course, MATH 100C, carries a prerequisite of MATH 82 or COMPASS algebra 50. Of the incoming CULN students in recent years, few have scored 50 or higher in the COMPASS algebra placement domain. In addition, pilot data suggest that CULN students could use supplemental support once in the required course.

Question #2 from Cory Ando’s email message dated 7/3/14 – “What is the success rate of Leeward CC’s AMT QM 107C/197C and CULN students MATH 100C/197C?”

Data from the College’s Institutional Research Office indicate success for the experimental transition courses of MATH 100C and QM 107C below.

In the MATH 100C (numbered MATH 197C during the 2013-2014 pilot year), 50% of the students passed with a C or better in fall 2013 and 63.3% of the students passed in spring 2014. Since MATH 100C (or equivalent) will be required for both the CA and AS degrees in CULN, low qualification and passing rates seriously jeopardize students’ ability to earn a CULN credential.

In the QM 107C (numbered QM 197C during the 2013-2014 pilot year), 86.7% of the students passed with a C or better in fall 2013 and 90.9% of the students passed in spring 2014. A substantial portion of the QM 107C students, 42.4%, were part-time students. The supplemental instruction with note-taking component of this proposal will provide students with the additional support that is essential to maintain the high level of success achieved in the experimental course.

In the AMT program, the increased rigor of the QM 107C course initially appears to be less burdensome since the prerequisite course did not change from the prior required course’s MATH 18 but the COMPASS prealgebra minimum score was increased by 10 points; however, in practice, even the 10 point difference makes a significant difference. In Fall 2013, of 56 incoming AMT students in fall 2013, while 43 scored at least 30 on COMPASS prealgebra, only 9 scored at least 40. The other 34 (61%) would have to take and pass MATH 18, putting them at least one semester behind the recommended schedule. Once enrolled in the course, pilot data suggests that the AMT students are generally able to succeed: 83% of the 24 students who enrolled in QM 197C in fall 2013 passed with a C or better. Passing the quantitative course in their first semester, or at worst their first year, is essential for all students interested in an AMT credential program since the all of the following AMT courses require QM 107C (or equivalent) as a prerequisite, co-requisite, or pre/co-requisite to a pre/co-requisite: AMT 20, 23, 40, 40D,
CULN students may feel pressured into having to complete MATH 100C. Providing the support needed to increase the pilot’s 57% success rate will assist with the underlying notion of the necessity for students to pass a course on the first attempt. Furthermore, it is recommended for students to take MATH 100C during their first semester into the program. Failure to pass a course, due to the CULN program’s rigorous structure and large credit hour credential requirement (30 required credits for a Certificate of Achievement and 64 required credits for an Associate’s degree), will increase the possibility for students to completely drop out of the program. This is especially detrimental for the more than 40% of CULN students who are part-time. In any case, without successful completion of MATH 100C, CULN students will fail to earn an associate’s degree or certificate of achievement.

Passing QM 107C in the first semester, or at worst their first year, is essential for all students interested in an AMT credential program since all of the following AMT courses require QM 107C (or equivalent) as a prerequisite, co-requisite, or pre/co-requisite: AMT 20, 23, 40, 40D, 41, 46, 50, 53, 55, 60, 93D/E. Success in QM 107C opens up the number of AMT course options a student may take, thus assisting them to qualify to register for and earn at least 12 credits in the academic year.

In Fall 2013
It is essential for MATH 100C and QM 107C students to have an opportunity to work with their dedicated In-Class tutorials in the Math Lab, since it is unlikely any of the general Math Lab tutors, typically calculus students, will have proficient knowledge of the concepts and methods introduced in the new math courses. CULN and AMT program coordinators and counselors recognize the importance of student interaction amongst support staff as well as other students, which reinforces the cohort model. These dedicated tutors will have specified hours, held in the Math Lab, where CULN and AMT students enrolled in MATH 100C, QM 107C, or developmental math prerequisite can receive help on homework problems. The reserved hours will be specifically selected based on the schedule of both programs. When appropriate, the MATH 100C or QM 107C instructor will refer a struggling student to the Math Lab. The consistency with which such students take advantage of Math Lab tutoring is an important effectiveness indicator. The rate at which students enrolled in MATH 100C or QM 107C pass with a C or higher letter grade is an important effectiveness measure.

Reduction in time to certificate or degree
The Summer Bridge and Supplemental Support programs for AMT and CULN students were developed to meet the needs of incoming and returning AMT and CULN students by helping to place them on the most direct quantitative path to earn their degree or certificate and to provide students with the support needed to gain and maintain proficiency in new and challenging mathematical concepts. This promotes enrollment into, and successful completion of, an Associate’s degree-qualifying quantitative reasoning course in their first semester.
2. Effectiveness Indicators/Outcomes and Benchmarks

Guidelines: Specific explanation of how project's effectiveness will be assessed, including the following:
- Effectiveness Indicators/outcomes
- Benchmarks (numeric and percentage)

The number of students who earn prerequisite waivers into MATH 100C and QM 107C as a result of the Summer Bridge are a crucial effectiveness measure. The success rates of these students are another effectiveness indicator.

For the Summer Bridge 2014:
The number of students who successfully complete the program to place into MATH 100C and QM 107C will be recorded and compared to the number of students who participated. 50 or more participants in year 1 are a reasonable indicator of student interest in the Summer Bridge 2014. This represents approximately half of the incoming AMT and CULN students who are expected to place into a developmental prerequisite rather than their respective college level course. 10 students qualifying for QM 107C through the Summer Bridge and 10 students qualifying for MATH 100C through the Summer Bridge is a reasonable benchmark indicating success of the Summer Bridge 2014. These counts more than double the number of students anticipated to qualify directly for QM 107C and MATH 100C in their first semester.

For the Supplemental Support
Of those who qualify for MATH 100C or QM 107C through the Summer Bridge 2014, the course success rate (C or better) will be measured. At least 70% of the students qualifying for MATH 100C or QM 107C through the Summer Bridge will earn a C or better.

The course success rates (C or better) in MATH 100C and QM 107C will be measured. A MATH 100C course success rate of 70% or higher is a 20 percentage point increase over the fall 2013 pilot semester's success rate, exceeds the recent general MATH 100 (Survey of Mathematics) course success rate, and is a strong indicator of the success of Supplemental Support. A QM 107C course success rate of 80% or higher maintains the success rate achieved by students in the fall 2013 pilot semester and is a strong indicator of the success of Supplemental Support.

Math Lab tutor contact logs will demonstrate a consistent pattern of multiple contacts with CULN and AMT students referred by their respective MATH 100C, QM 107C, or developmental prerequisite instructors for additional assistance.

Due to the projected increase in the number of students who meet their quantitative requirement successfully and early in their respective programs, the number of students completing a degree or certificate will meet or exceed the 50% Perkins goal for CULN and will maintain the 2012-2013 baseline of 60% for AMT.

3. Background Research

Guidelines: Concise explanation of background research (with citation Information) for project

Complete College America stresses the importance of placement directly into credit-bearing courses in their publication Transforming Remediation: "Fewer than 25 percent of community college students who are placed in remedial education ever receive a degree or certificate. Moreover, the longer a student spends in remedial education, the less likely he or she is to ever complete a degree."

According to Achieving the Dream and MDC, "Providing academic support once students are in class goes a long way to ensuring success." (from What We Know: Lessons from the Developmental Education Initiative)

The Center for Community College Student Engagement (CCCSE) echoes this position: "Studies indicate that students participating in supplemental instruction earn higher grades than their peers who do not participate." (from A Matter of Degrees)
<table>
<thead>
<tr>
<th>4. Relationship to Campus &amp; UHCC Strategic Plans</th>
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<tbody>
<tr>
<td>Guidelines: Discussion of project's relationship to campus &amp; UHCC strategic plans, including the following:</td>
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<tr>
<td>- Specific references to and copies of applicable sections of plans</td>
</tr>
<tr>
<td>- Brief explanation of relationship between project and referenced sections</td>
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</table>

By accelerating AMT and CULN students into program-required college-level quantitative reasoning course and promoting success in the course in the first semester/year and on the first attempt, this project promotes completion of a historically challenging credential requirement and promotes the following Leeward CC and UHCC strategic outcomes and measures:

Leeward CC: Globally Competitive Workforce
4.1: Increase the number of degrees awarded, and/or transfers to UH baccalaureate programs that lead to occupations where there is a demonstrated state of Hawaii shortage of qualified workers, or where the average annual wage is at or above the U.S. average (2006 = $38,651)

UHCC: Globally Competitive Workforce
B.1: Increase by 3% per year the number of degrees awarded, and/or transfers to UH baccalaureate programs that lead to occupations where there is a demonstrated state of Hawaii shortage of qualified workers, or where the average annual wage is at or above the U.S. average (2006 = $38,651).

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<tr>
<th>5. Scalability Guidelines: Discussion of project's scalability (on campus and/or to other campuses)</th>
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Hawaii CC and UH Maui College are proposing similar QM 107C courses for the AMT programs. Both Colleges worked closely with Leeward CC faculty on the course development and are open to similar Summer Bridge and Supplemental Support programs when success can be documented.

For other Colleges’ CULN program quantitative reasoning implementations, some specifics might need modification but the goal and general implementation would be similar for any contextualized college level quantitative reasoning course.

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<tr>
<th>6. Sustainability Guidelines: Discussion of project's sustainability (after UHCC project funding ends)</th>
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</table>

Computer obsolescence is unavoidable but other than the requested laptops to replace the 9 obsolete and unreliable models, the existing Math Lab computers will provide sufficient and reliable service for a number of years and will be replaced on the College’s IT time-table.

For the Summer 2014 bridge, the online software publisher will provide students with access licenses at no cost. In subsequent years, after the success of the Summer Bridge is documented, students will purchase licenses with their own funds (approximate cost $37).

Upon demonstration of demand for and success of the project, a request for ongoing funding will be made to College administration. The Deans of both Career-Technical Education and Arts and Sciences have been and supportive of interventions such as these and should support the request to the Vice Chancellor for Academic Affairs for ongoing funding once demand and success are documented.

| TOTAL |

**PART 2: BUDGET**

Instructions: Complete the following, inserting and/or deleting rows as needed.

General guidelines: Funds may be used for faculty and staff assigned time; for pilot projects; for consultants; for financial aid audits; for related equipment, software, or curriculum materials; or similar one-time expenses. Funds may not be used to hire new full-time faculty or staff.

For projects involving more than one campus, budget must include a breakdown of costs by campus in addition to a total project budget. Single requests over $2,500 require Superquote.
The relationship between the requested expenditures and the project's effectiveness indicators/outcomes and benchmarks must be addressed specifically in the project proposal.

Any change of more than ten percent (10%) of any cost item or $500 (whichever is less) in an approved budget will require the proposer to email a request for the change, prior to expenditure of funds, to the committee chair and Suzette Robinson with the following: (1) reason for the change (including the relationship between the requested change and the project's effectiveness indicators/outcomes and benchmarks); and (2) original and proposed revised budget. Committee will support, or not, the budget change request.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>BUDGET</th>
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<tbody>
<tr>
<td>A PERSONNEL (Personnel costs include, but are not limited to, faculty or staff overload, student assistants, casual hires, and/or lecturer replacement. Unlike federal regulations, these funds do not require that the person doing the work be paid from this funding source. Personnel fill requests are required to be in the form of a lecturer B step.) Confirm the applicability of inclusion of fringe benefits costs and the amount of such costs with your human resources or business office. Indicate fringe benefit percentage and cost, if any, as a separate line item.</td>
<td></td>
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<tr>
<td>A1 2014 Summer Bridge Tutors (2 Tutors x $10/hr x 15 hrs/ wk x 7 wks = $2,100, +$11 fringe)</td>
<td>$2,111</td>
</tr>
<tr>
<td>A2 AY 2014-2015 Tutors (2 Tutors x 15 hrs/ wk x $10/hr x 16 wks x 2 semesters = $9,600, +$49 fringe)</td>
<td>$9,649</td>
</tr>
<tr>
<td>A3 AY 2014-2015 Specialized Tutor Training (2 tutors x 10 hrs x $10/hr x 2 semester = $400, +$2 fringe)</td>
<td>$402</td>
</tr>
<tr>
<td>A4 2015 Summer Bridge Tutors (3 hours per day x 25 days x $10 per hour x 2 tutors = $1,500, +$8 fringe)</td>
<td>$1,508</td>
</tr>
<tr>
<td><strong>TOTAL PERSONNEL</strong></td>
<td><strong>$13,670</strong></td>
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<tr>
<td>B SUPPLIES (Supplies include, but are not limited to, office supplies, travel, conference fees, mileage, and computers.)</td>
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<tr>
<td>B1 Replacement of 9 obsolete/unreliable notebook computers (9 x $2,000 = $18,000)</td>
<td>$18,000</td>
</tr>
<tr>
<td>B2 Livescribe pens for note-taking and distribution ($300 ea. x 2 tutors x 2 semesters = $1,200)</td>
<td>$1,200</td>
</tr>
<tr>
<td>B3 Textbooks for tutor training ($100 ea. x 2 tutors x 2 semesters = $400)</td>
<td>$400</td>
</tr>
<tr>
<td><strong>TOTAL SUPPLIES</strong></td>
<td><strong>$19,600</strong></td>
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<tr>
<td>C EQUIPMENT (Equipment is defined as any one item costing $5,000 or more.)</td>
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<td>C1</td>
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<td>C2</td>
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<tr>
<td><strong>TOTAL EQUIPMENT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL BUDGET REQUEST</strong></td>
<td><strong>$33,270</strong></td>
</tr>
</tbody>
</table>
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 budget.

Signature: [Signature]
Date: July 17, 2014
Name: Darci Miyashiro
Title: Math Lab Manager

Confirmation of Support by Vice Chancellor Academic Affairs (VCAA) or Vice Chancellor Student Affairs (VCSA)

I have reviewed and support this proposal.

Signature: [Signature]
Date: July 17, 2014
PRINT Name: Ron Umehira for Michael Pecsok
Title: ☒ Vice Chancellor Academic Affairs (VCAA) OR
      ☐ Vice Chancellor Student Affairs/DOSS (VCSA/DOSS)

Confirmation of Campus Approval by Chancellor

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: July 17, 2014
Print Name: Manuel Cabral
Title: Chancellor