March 14, 2014

TO: Manuel Cabral, Chancellor
    Leeward Community College

SUBJECT: Career & Technical Education Award

Leeward Community College is awarded $3,232 in 2013-14 Title I Career and Technical Education funds to support the titled project:

HEV Training and SAE Certification for UHCC Automotive Instructors $3,232

The award period for the project is from July 1, 2013 to August 30, 2014 and the award number for the project is: OSD/KAU2013/14(1)-T1-10 and should be referenced on all future correspondence and reports. These funds must be expended and goods received by August 30, 2014. A completion report is due on October 10, 2014.

Please call Dominic (Nic) Estrella at 956-3865 if you have questions.

Sincerely,

[Signature]

Peter Quigley
Assoc. Vice President for Academic Affairs

Cc: M. Pecsok, VCAA
    M. Lane, VCAS
    R. Umehira, CTE Dean
    C. Lucas, FA
    L. Tsuchako, FA
    S. Robinson, Dir. of Academic Program
Strategy # UHCC HEV Training and SAE Certification Priority # 1
Program Year 2014-15

1. College: Kauai, Honolulu, Leeward, Maui, & Hawaii Community Colleges

2. (Descriptive) Strategy Title: HEV Training and SAE Certification for UHCC Automotive Instructors

3. Proposer's Name: Gordon Talbo E-Mail: gtalbo@hawaii.edu


Is this proposal a part of a multiple-year strategy? No
If this is a multiple-year strategy, for what year is this proposal requesting funding?
Year 1

5. Brief Statement of identified problem area and reason for selection:
   a) In 2010 the Obama administration set new fuel-economy and carbon-pollution limits to improve fuel economy and reduce the dependence on imported oil. Fuel-economy and carbon-pollution standards for 2012 to 2016 model cars sparked job growth in automobile manufacturing and increased automobile sales with vehicles having an average fuel economy of 34.5 miles per gallon. By 2012 the auto industry added over a quarter-million jobs—236,000—while they worked to comply with the fuel-efficiency standards. The Center for Climate and Energy Solutions describes these Federal Vehicle Standards. http://www.c2es.org/federal/executive/vehicle-standards.

   Specialized training in hybrid and electric vehicle maintenance and repair is required to meet industry needs as vehicle manufacturers comply with the goal to produce electric vehicles and address the fuel-economy and carbon-pollution standards.

   The UHCCs Consortium in 2011 held their Comprehensive Economic Development Strategy (CEDS) meeting with stakeholders to develop workforce development plans. The consortium members identified areas of greatest need on workforce training with Automotive EV/PHEV as a targeted industry. As a result of CEDS and the gap analysis in workforce development, our automotive programs in the UHCC system must keep pace with technology and train students at industry standards as the country along with the rest of the world look towards alternative energy as a solution along with being globally responsible for a sustainable future.

   The automotive program at Kauai Community College has already developed curriculum on Hybrid and Electric vehicle technology to create a new Certificate of Achievement in Automotive Green Technology that will be presented to the UH Board of Regents for approval. Collaboration within the UHCC automotive programs has already taken place, but advanced training and certification is now needed to establish a solid foundation for the new CA and be able properly train our students on specific NATEF tasks and new technology of alternative green energy.
b) This project aligns with the Purpose of Perkins IV to develop more fully the academic and career and technical skills of postsecondary education students that also will allow the automotive programs to move forward in training on new sustainable energy along with certification by the Society of Automotive Engineers (SAE) International.

1. Perkins Core indicator 1P1: Technical Skills Attainment and the UHCC Strategic Goal C and KCC Strategic Goal 3 to Promote Workforce and Economic Development. To promote workforce and economic development and respond to the community needs, the programs will be better prepared to provide trained entry-level technician in a globally competitive field following NATEF and industry standards. The project will integrate academics with career and technical training by applying competency based tasks with updated technology on Hybrid and Electric vehicles.

2. This project also aligns with Perkins Core indicator 4P1: Student Placement and UHCC Strategic Goal A and KCC Strategic Goal 1 to Promote Learning and Teaching for Student Success. This initiative will improve, expand and modernize the quality of our career and technical programs including relevant sustainable technology. Students will be trained with new sustainable technology of alternative energy and the “Green Concept” on Hybrid and Electric vehicles.

6. Brief Strategy Description:
   • Collaboration between the automotive programs within the UHCC system and training on Advanced Diagnostics on Hybrid and Electric vehicles will allow articulation between program courses as the new Certificate of Achievement in Automotive Green Technology is established. Training acquired will prepare our automotive instructors to become certified by SAE International in order to safely and effectively train our students on high voltage systems. By moving forward with training on modernized technology of Green Sustainable energy the automotive programs will enhance their partnerships with the industry by providing better-trained entry-level technicians.

   • Evidence of industry support is displayed by President Obama’s goal of putting one million electric vehicles on the road by 2015 that represents a key milestone toward dramatically reducing dependence on oil. Leading vehicle manufacturers already have plans for cumulative U.S. production capacity of more than 1.2 million electric vehicles by 2015 to ensure the goal is met.

http://www1.eere.energy.gov/vehiclesandfuels/pdfs/1_million_electric_vehicles_rpt.pdf

As with any vehicle, electric vehicles need to be occasionally maintained and repaired. Much of the routine maintenance and repair work can be done by normal auto repair workers, but the electrical systems and drivetrain will need skilled workers familiar with electric vehicles. The U.S. Bureau of Labor Statistics describes the green jobs and careers in Electric Vehicles.


Statistics by the Hawaii Workforce Infonet shows the long term employment projections for Automotive Service Technicians and Mechanics in Hawaii listed on table below. See:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Service Technicians and Mechanics</td>
<td>2,740</td>
<td>3,050</td>
<td>310</td>
<td>1.1%</td>
</tr>
<tr>
<td>Total, All Occupations</td>
<td>651,740</td>
<td>727,440</td>
<td>75,700</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

🌟 BRIGHT OUTLOOK NATIONALLY  🌿 GREEN OCCUPATIONS

Projected Annual Openings
The table below shows the long term projected annual openings for Automotive Service Technicians and Mechanics in Hawaii from 2010 to 2020.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total Annual Average Openings</th>
<th>Annual Average Openings Due To Growth</th>
<th>Annual Average Openings Due To Replacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive Service Technicians and Mechanics</td>
<td>100</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>Total, All Occupations</td>
<td>23,560</td>
<td>7,830</td>
<td>15,730</td>
</tr>
</tbody>
</table>

🌟 BRIGHT OUTLOOK NATIONALLY  🌿 GREEN OCCUPATIONS

• Kauai CC automotive program has established a partnership with Automotive Research and Design (AR&D) to bring the training to our KCC campus. The UHCC automotive faculty will travel to Kauai May 19-23 to participate in a 5-day hands-on training workshop to become certified by the Society of Automotive Engineers (SAE) International on Advanced Hybrid and Electric Vehicle Diagnostics. The conference flyer is attached and may be viewed at: [http://www.autoresearchanddesign.com/training.php](http://www.autoresearchanddesign.com/training.php)

The 5-day course description is also attached and may be view at: [http://www.autoresearchanddesign.com/FILE%20ASSETS/2013CourseInfo/5%20Day%20SAE%20Advanced%20HEV%20Diagnostics%20Credential%20Course%20Yr%202013.pdf](http://www.autoresearchanddesign.com/FILE%20ASSETS/2013CourseInfo/5%20Day%20SAE%20Advanced%20HEV%20Diagnostics%20Credential%20Course%20Yr%202013.pdf)

Total cost for travel with airfare, hotel, car and per diem for program faculty attending the training is $13,148. The cost breakdown per campus is listed below:
Hawaii CC 2 faculty: Jeff Fujii, and Garrett Fujioka = $3,432
UH Maui College 2 faculty: Thomas Hussey, and Kyle Takushi = $3,402
Leeeward CC 2 faculty: Jake Darakjian, and Rodney Hirokawa = $3,232
Kauai CC 2 faculty: Gordon Talbo, and Lawrence Pacanas will host the training event.
HonCC will send 3 faculty, but will use other resources to fund their training and travel.

• Services and training will be provided by Automotive Research and Design (AR&D) at a cost of $2,595 per person with a discount of $250 to each UH instructors and fees waived for both KCC faculty. KCC will coordinate payment to AR&D with the total cost at $14,070.
7. Calendar of Planned Activities:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Month(s) the Activity will take place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register UHCC automotive instructors for training</td>
<td>February 2014</td>
</tr>
<tr>
<td>Acquire quote from AR&amp;D to create requisition for P.O.</td>
<td>February 2014</td>
</tr>
<tr>
<td>Training and SAE certification</td>
<td>May 2014</td>
</tr>
</tbody>
</table>

8. Effectiveness Measures:

- All 8 instructors being trained will become certified by SAE International in Advanced Hybrid and Electric Vehicle Diagnostics.
- Training acquired will be implemented into programs toward articulation of courses. Curriculum will be updated to properly train students to complete 100% of the NATEF tasks specifically on high voltage systems allowing a seamless transition between programs.
- New Certificate of Achievement in Automotive Green Technology will be developed by KCC for all involved campuses and a CA proposal will be presented to the Board of Regents for approval by Fall 2014.
## 9. Budget Summary:

<table>
<thead>
<tr>
<th>Personnel (List all positions separately)</th>
<th>Budget</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel Subtotal</td>
<td>$</td>
<td>-</td>
</tr>
<tr>
<td>Fringe Benefits (List per position)</td>
<td>0</td>
<td>$</td>
</tr>
<tr>
<td>Fringe Total</td>
<td>$</td>
<td>-</td>
</tr>
<tr>
<td>Personnel Subtotal</td>
<td>$</td>
<td>-</td>
</tr>
<tr>
<td>Services</td>
<td></td>
<td>14070</td>
</tr>
<tr>
<td>Material &amp; Supplies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel Hawai CC</td>
<td></td>
<td>3432</td>
</tr>
<tr>
<td>Travel UH Maui College</td>
<td></td>
<td>3402</td>
</tr>
<tr>
<td>Travel Leeward CC</td>
<td></td>
<td>3232</td>
</tr>
<tr>
<td>Rentals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td></td>
<td>$24,136</td>
</tr>
</tbody>
</table>

Fringe Benefit Rates (as of) 7/10/13

- Faculty/Staff 44.91%
- Casual Hire/Overload 2.26%
- Student 0.51%

### Budget Summary per Campus

<table>
<thead>
<tr>
<th>Training and Certification fee</th>
<th>KauCC-2</th>
<th>LeeCC-2</th>
<th>Maui CC-2</th>
<th>HawCC-2</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training fees for all instructors</td>
<td>14070</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24136</td>
</tr>
</tbody>
</table>
10. Indicate which Perkins requirements are covered by this proposal?

- [x] 1. Building of the efforts of States and localities to develop challenging academic and technical standards and to assist students in meeting such standards, including preparation for high skill, high wage, or high demand occupations in current or emerging professions
- 2. Promoting the development of services and activities that integrate rigorous and challenging academic and career and technical instructions, and that link secondary education and postsecondary education for participating career and technical education students
- 3. Increasing State and local flexibility in providing services and activities designed to develop, implement and improve career and technical education, including tech prep education
- 4. Conducting and disseminating national research and disseminating information on best practices that improve career and technical education programs, services, and activities
- 5. Providing technical assistance that –
  (a) Promotes leadership initial preparation, and professional development at the State and local levels; and
  (b) Improves the quality of career and technical education teachers, faculty, administrators and counselors
- 6. Supporting partnerships among secondary schools, postsecondary institutions, baccalaureate degree granting institutions, area career and technical education schools, local workforce investment boards, business and industry, and intermediaries
- 7. Providing individuals with opportunities throughout their lifetimes to develop, in conjunction with other education and training programs, the knowledge and skills needed to keep the United States competitive

11. Certifications:
I certify that this proposal, budget, and certifications are accurate and complete and that this project will be conducted in accordance to Perkins policies and Federal, State, and University regulations and requirements.

I also certify that I have consulted with the appropriate Institutional Research, Business Office and Human Resources Office personnel and that they have reviewed all budgets and resource commitments and have found that they comply with Perkins, Federal, State, and University requirements and policies.

Signature: __________________________ Date: 2/5/2014

Print name: Gordon Talbo