

**Sustainable Construction Technology (SUSC) Program**

**ANNUAL DEGREE PROGRAM ASSESSMENT, PLANNING, AND BUDGET REPORT**

2014-2015

**Prepared by**

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Program Description: **Sustainable Construction Technology (SUSC) Program**

1. Briefly respond in 100 words or less for each cautionary and/or unhealthy Quantitative Indicator (II):
   * Demand Indicator: No ARDP information available at this time
   * Effectiveness Indicator: No ARDP information available at this time
   * Efficiency Indicator: No ARDP information available at this time
2. Industry Validation (check all that apply)(IV-A):

Advisory Committee Meeting(s) \_, How many? \_**0**\_ Did Advisory Committee discuss CASLO/PLO? Yes\_\_ No\_**X**\_

Coop Ed Placements \_**X**\_ Fund raising activities/events \_\_ Service Learning \_Provide program services that support campus and/or community \_**X**\_ Outreach to public schools \_**X**\_

Partner with other colleges, states and/or countries \_\_ Partner with businesses and organizations \_**X**\_

Other: **Refer to Action Plan: Program Improvement (number 8)**

1. List PLOs (Program Map attached)(IV):

**PLO 1:** Use appropriate materials, tools equipment and procedures to carry out tasks performed on construction projects according to safety and industry standards.

**PLO 2:** Use math skills to solve problems related to construction plans and processes.

**PLO 3:** Introducing the requirements of the Green Building certification program. To include, waste stream management, locally developed energy sources, renewable sustainable materials and resources.

**PLO 4:** Gain knowledge of how to implement the sustainable living practices of the host Hawaiian culture.

1. Instrument used for assessment (check all that apply) (IV-B):

Work Sample\_\_ Portfolio\_\_ Project \_\_ Exam \_\_ Writing Sample \_\_

Other\_**X**\_ Please explain: Instrument to assess MAIN 3, Masonry was not developed or planned by Instructor who has left the program. New hire will address assessment of Main 30 when it is taught in the spring 2015 semester.

1. Which course or courses did you use to assess PLOs and CASLO (IV-C)?

* PLOs: Accurate documentation of PLO2 assessment utilizing the MAIN 30, Masonry course and specifying instrument of assessment for the Fall Semester 2014 as scheduled in the attached Program Map is unavailable at this time.
* CASLO (Information Literacy): ENG100 Composition 1

1. List strengths and weaknesses found from PLO assessment analysis (IV-E):

* Recent reductions in Full Time Faculty positions as well as changes in staff within the SUSC Program had resulted in a vacancy in the assignment of the SUSC Program Coordinator duties, and the responsibilities of review, assessment, and improvement of Program curriculum. This will be a top priority in the upcoming year.

1. List CASLO assessment findings highlights (CASLO report attached) (IV-E):

* Many students of SUSC are facing academic and remedial challenges. Industry does not require a degree to be employed. Many of the SUSC Program students take the hands-on and applied general education courses to become familiar with individual trade skills and competencies required for employment in each individual trade, with no intention of completing their AAS.
* Most SUSC Program majors will not place in English 100 on their COMPASS Placement test. This issue needs to be addressed if we are to increase SUSC Program AAS graduates.
* CTE students would be more successful developing research skills if applied to projects that allow them to explore their genuine interests. AAS Graduates will need research skills to maintain currency in their profession. They will also use information literacy to solve inevitable problems they face in the workforce and life that requires knowledge and skills beyond their training.

1. Action Plan (III) and Next Steps (IV-G):

**PLO:** Timely assessment of PLOs by course to be implemented by SUSC Program Coordinator.

* PLO assessment for each course to be reviewed and brought up to date within 3 years.

**CASLO:**

* A 100-level English course should be developed that applies writing and research skills to their technical field. The curriculum should be streamlined for CTE majors and focus on what writing skills are important to them and are required for them to be successful in that industry. The curriculum should also focus on what students find relevant, with instructions that are concrete and clear, vocabulary that students understand, and demonstrations and visual examples.
  + SUSC Program Coordinator will work with English Department representatives to develop a 100-level writing course for SUSC Program students that would also address research outcomes.

**Program improvement:**

* The SUSC Program’s Advisory Committee has been inactive since April, 2012. Therefore, any discussion on the results of student learning hasn’t come forward to the Advisory Committee.
  + The SUSC Program has not had a Program Coordinator since the summer of 2013. As of August, 2014 the position has been filled and the Advisory Committee is being reactivated in the fall of 2014 and convened in the spring of 2015. The agenda will include a discussion to set the context of skills and general education requirements that provide the industry validation our graduates need to succeed in the workforce.
* Course Outlines and Program Map are in the process of being updated to articulate, when possible, in alpha, number, description, and credits with other campuses within the University of Hawaii Community College System.

1. Chart of resource needs (IV): **Prioritized**

|  |  |  |
| --- | --- | --- |
| Budget request | Amount | Justification for how this will improve learning |
| **8 ea.** 208 Volt, Single Phase, 100 Amp  **5 ea.** 208 Volt, Single Phase  50 Amp  Electrical Branch Circuit Installations (Welding Bldg.) + Repair to existing equipment  **Or**  **10 ea**. Arc Welding Machines 208Volt/3 Phase  **5 ea.** MIG Welders 208 Volt/3 Phase  Repair to existing equipment | **Electrical Upgrades**  $60,000-70,000 (must be engineered)  +  $8,500  **Or Equipment**  $45,000  +  $12,000  +  $8,500 | Branch circuits and repair of currently utilized antiquated equipment will facilitate installation of currently idle inventoried equipment that will enable the seating of 8 additional students in the WELD courses. Whereas, the purchase of new equipment for replacement and repair of 20-35 year old equipment at the existing building voltage/phase would allow the students to learn on current industry standard equipment, enhancing their employability in the construction and automotive industries. According to the 2012-13 ARDP Report and current campus reports, the SUSC and AMT Programs at UHMC consist of approximately 178 annual majors collectively. This class is required for all majors in the SUSC and AMT Programs; since WELD max seating is 16 with one class per term, it will take a minimum of 6.4 semesters (3 years) for WELD 19B to accommodate just the current majors, at the current rate of offering. The addition of the workstations and additional sections for this course mitigates retention, persistence and completion issues due to excessive wait time for students in both programs and enhances student success. |
| Full Time Faculty Position, C-2 Instructor | Annual:  Approx. $58,000 + faculty benefit package | The workload of one FT Faculty and the current Program Lecture staff does not support scheduling of classes for students to graduate within 2, or more often, 3 years; due to guidelines for class sizes for most CTE/VocTech hands-on lab courses, students often must postpone graduation for multiple semesters which complicates retention persistence and completion issues. Funding for a second FT Faculty position will not only support student learning and offer students more sections of classes more often; The position will also address issues such as Program recruitment, student support and Program representation within the College and community; and the position will potentially expedite curriculum development and industry certification of students, ultimately elevating and reinforcing our graduates employment potential in the building and construction industry. |
| * Current Industry Standard Tools and Safety Equipment * Amatrol® 950-STCL1 Solar Thermal Troubleshooting Learning System - Closed-Loop * Amatrol® 95-SIP Solar Instruments Package * Amatrol® T7017A AC/DC Electrical Learning System | $12,000  $25,962+ approx. $4,000 shipping  $1,074+ approx. $250 shipping  $5,909.00+ approx. $1500 shipping | Current inventory of tools and safety equipment does not meet industry standards; in order to meet the SLOs and PLOs within the SUSC Program Map, students must demonstrate proficiencies with current industry standard tools to industry standards in the Course Alphas: MAIN, ELEC, ENRG, CARP, BLPR and AEC. Each course number within each alpha requires specialized industry tools that: technologically require replacement to stay current with industry skills and techniques; meet current industry and OSHA/HIOSH safety requirements, and replace tools that are beyond economical repair.  The Amatrol® Learning Systems enhance student learning with real-world components which allow the kinesthetic learners to experience hands-on training with minimal to zero waste in expendable materials. These units would be used within the program for courses such as: ELEC20, ELEC23, MAIN 20, MAIN60, ENRG 101, and ENRG 103. The systems could also be shared with other programs within the STEM and non-credit/continuing education departments at UHMC. |
| Expendable Materials | $7,500 | One-time-use fittings, fasteners, building and construction materials necessary to facilitate kinesthetic lab exercises and student learning assessment involving the use of current industry tools. |

\* Roman numerals indicate related category for system input





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