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

2013-2014

**Program Description**

The Engineering Technology program which leads to a Bachelor of Applied Science degree provides curriculum and extensive hands-on training in electronics, computers, optics, remote sensing, and other technologies required for employment in local and regional high tech companies and industries.

**Mission Statement**

The mission of the ENGT program is to prepare graduates to be productive technologists with a broad array of skills in a variety of areas such as telescope operations, high performance computing for scientific and engineering applications, energy production and distribution including photovoltaic and wind turbines, and system administration in a variety of industries.

1. Briefly respond in 100 words or less for each cautionary and/or unhealthy Quantitative Indicator (II):
   1. Demand Indicator:

* 1. Effectiveness Indicator:
  2. Efficiency Indicator:

1. Industry Validation (check all that apply)(IV-A):

Advisory Committee Meeting(s)**Yes**, How many?**1** Did Advisory Committee discuss CASLO/PLO? Yes  **X** No\_\_

Coop Ed Placements **Yes** Fund raising activities/events **Yes** Service Learning **Yes**

Provide program services that support campus and/or community **Yes** Outreach to public schools **Yes**

Partner with other colleges, states and/or countries **Yes** Partner with businesses and organizations **Yes**

Other\_\_ Describe\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

* Analyze, design, and implement electro-optic systems, control systems, instrumentation systems, communication systems, computer systems, or power systems
* Apply project management techniques to electrical/electronic(s) and computer systems
* Utilize integral and differential calculus, or other appropriate mathematics above the level of algebra and trigonometry to solve technical problems
* Demonstrate critical engineering technology skills and experiences such as: making existing technology operate, creating/selecting new technology, troubleshooting, calibrating, characterizing, and optimizing
* Demonstrate engineer's way of thinking, analyzing technology as systems
* Demonstrate engineer professional skills such as communication and managing projects
* Demonstrate proficiency in the general education college core requirements: creativity, critical thinking, oral and written communication, information retrieval, quantitative reasoning
* Demonstrate recognition of the need for, and an ability to engage in lifelong learning
* Demonstrate an ability to understand professional, ethical and social responsibilities
* Demonstrate a respect for diversity and knowledge of contemporary professional, societal and global issues
* Commit to quality, timeliness, and continuous improvement

Program Map



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

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

Other\_\_ Please explain\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

PLOs: ETRO 370, 450, 475

CASLO: ETRO 497

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

**ETRO 370** - the course is heavy in testing the students on demonstrating engineer's way of thinking, analysis of systems and creativity and critical thinking, as well as written and oral skills.

**ETRO 450** - the course is heavy in testing the students on “demonstrating engineer's way of thinking” and “utilizing mathematics above the level of algebra”, it also assesses students on “analysis of systems”, “creativity critical thinking”, and “written oral skills”. Course marginally assessed “ability to operate existing technology”, “lifelong learning”, “and continuous improvement” and “understand professional and ethical responsibilities”.

**ETRO 475** - the course is heavy in testing the students on demonstrating “engineer's way of thinking”, “analysis of systems” and “creativity and critical thinking”, as well as “written and oral skills”. Course assesses students in “communication” and “managing projects” and also “recognition of lifelong learning” while marginally assesses students in “utilize mathematics above level of algebra”, “diversity” and “continuous improvement”.

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

* Project-specific, research-based assignments to actively guide students thru the information gathering process can encourage more engagement with information literacy qualities, techniques and standards.
* Requiring a minimum number of sources will ensure a minimal level of “depth and breadth” of outside information integrated into the assignment.

Engineering Tech-Information Literacy CASLO Report

https://laulima.hawaii.edu/access/content/group/91ea6bed-23da-449e-8af8-76659235c891/Reports/Information\_Literacy/Meeting\_Reports/Engineering%20Tech--Information%20Literacy%20CASLO%20Report.pdf

1. Action Plan (III) and Next Steps (IV-G):
   1. PLO: ETRO 415, 497,
   2. CASLO: ETRO 497 (Fall 2014)

Standard 2 – Quantitative Reasoning: Calculate, analyze, and present mathematical information effectively.

* 1. Program improvement
* Continue participation at all available venues, such as Super Science Day (Na Pua No’eau Upward Bound), student fairs, student orientations, high school visits, and UH community colleges.
* Get funding from diverse institutions to ensure that the program will run smoothly.

1. Chart of resource needs (IV)

|  |  |  |
| --- | --- | --- |
| Budget request | Amount | Justification for how this will improves learning |
| Software licenses | $10,000 | The ET program requires state of the art software programs and licenses in order to meet the goals of local industry employment. |
| \* Academic, administrative, and financial baccalaureate program coordinator |  | Administers, manages, and coordinates all three bachelor's degrees: scheduling, advising, recruiting, assessing the programs, coordinating activities on campus. |

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1. Academic Program Coordination

* Develop, articulate, and foster a collective "baccalaureate" program vision
* Promote continuing improvement of the baccalaureate programs by implementing a plan for assessing program goals and initiatives, and for utilizing assessment data in program development and enhancement.
* Coordinate the application process including advising applicants of admissions procedures and program requirements
* Create an academic plan for each student
* Ensure students compliance with program requirements and track student's progression to ensure continued progress towards completion of the degree requirements. Monitors GPAs. Tracks retention.
* Coordinate with faculty and counselors regarding students' progress and compliance with policies and procedures, keeping them up to date accordingly.
* Maintain student's records
* Arrange for undergraduate research experiences and internships
* Maintain contact and communication with alumni, as appropriate.

2. Administrative Support

* Coordinate fall, spring, and summer class schedules for all baccalaureate programs
* Prepare and submit reports
* Maintain an active presence at campus events related to the baccalaureate degrees
* Coordinate the enhancement and maintenance of departmental website
* Act as first point of appeal for students and faculty with complaints and/or academic issues to discuss.
* Encourage and oversee faculty efforts to foster collegiality and collaboration within and between programs (e.g., developing cooperative and/or interdisciplinary events, courses, and programs, where feasible).
* Coordinate the promotion of programs to increase student participation. This includes implementing promotional plans, creating marketing materials and media, coordinating the production and distribution of materials, and visiting high schools.
* Maintain project files, including documentation and correspondence.
* Communicate with outside consultants and contractors.

3. Budgetary/Financial Coordination

* Monitor and track program/project expenditures to ensure adequate funding throughout the year. Reconcile budgets
* Assist in the development of yearly program budgets. Produces financial reports and summaries.
* Prepare, process, and maintain stipend payments.
* Process purchase orders and identify the appropriate accounts.