

**HAWAI‘I COMMUNITY COLLEGE  
PROGRAM ANNUAL REVIEW REPORT**

**Associate in Science  
Natural Science  
ASNS**

**Date 11/15/2015**

**Review Period  
July 1, 2014 to June 30, 2015**

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## Program Description

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This Associate in Science Degree program prepares students to transfer to 4-year institutions in STEM (Science, Technology, Engineering and Mathematics) related fields. Hawaii Community College offers two ASNS tracks: Biological Science and Physical Science. For more information, contact Laura Brezinsky by email (laura@hawaii.edu).

### **This is not a “mission statement” but it IS the primary goal of this program:**

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The proposed new A.S. degree in Natural Science (AS-NS) with concentrations in Biological Science or Physical Science at Hawaii Community College (HawCC) will prepare students to transfer to baccalaureate STEM (Science, Technology, Engineering and Mathematics) programs with a recognized and supported pathway. The degree will allow Hawaii Community College to better serve STEM students, as well as align our college’s degree offerings with those of the other community college campuses.

## Part I. Review of Program Data

**Go to the Annual Reports for Program Data (ARPD) website linked below and review the data for your program.**

<http://www.hawaii.edu/offices/cc/arpd/>

## Part II. Analysis of the Program

“Demand, Efficiency, and Effectiveness” have been analyzed and the results are published on the ARPD site at <http://www.hawaii.edu/offices/cc/arpd/>.

Program Demand is analyzed as being “Healthy”. This is based on the percent change in majors from the previous year (#2 Demand Indicators). Because this is a new program, the percent change was measured at 100%. However, we had 12 students in the previous year, and this year we have 46. So the increase in demand was actually close to 400%.

Program Efficiency is analyzed as being “Healthy”. This analysis is based on fill rate (#9), and Majors to FTE BOR Appointed Faculty (#11). Fill rate is based on the courses that are designated for this program; BIOL171/171L/172/172L, CHEM161/161L/162/162L, BIOL281 & GG101. In most cases, our students have been taking these classes at UHH by way of an existing agreement between UHH and HawCC. UHH holds 2 seats in 1-2 sections for each of these classes for HawCC ASNS students. HawCC students register through the normal HawCC registration process, but they are attending UHH classes. Generally we have at least 2 students who fill those available seats.

Program Effectiveness is analyzed as “Unhealthy”. This analysis is based on “Persistence (Fall to Spring)” (#18), and “Difference Between Unduplicated Awarded and Goal” (#19). The poor persistence measure (45%) is likely a reflection of the newness of this program. Many students enrolled in this program and later decided to change majors, or transfer to UHH or other campuses where all of the required courses are offered. While we *have* been providing enrollment opportunities in all of the required courses as described above, the schedule

and availability is limited. This has caused some difficulties for students. The result for #19 (-100%) is an artifact due to the lack of any stated goal. The college has not entered a "goal" so this measurement cannot be calculated.

### **Part III. Action Plan**

**Describe in detail the Program's overall action plan for the current/next academic year. Discuss how these actions support the College's Mission and can lead to improvement(s) in student learning. Include specific action plans to address any ARPD Health Call scores of "Cautionary" or "Unhealthy," and any Perkin's Core Indicator(s) for which the Program's Goal was not met.**

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The college will investigate the availability of funding to provide additional facilities and faculty that are required in order to create an independent program with more flexibility for our students. These improvements would allow us to offer all of the required courses for this program. Facilities would include additional classroom space, Chemistry, Physics and Biology labs, and equipment. Additional faculty members should include at least 1 additional Physics Instructor, 1 additional Chemistry Instructor. As the program grows we may also require an additional Biology Instructor.

### **Part IV. Resource Implications**

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**Please provide a brief statement about any implications of current operating resources for the Program. Budget asks are included in the 3-year Comprehensive Review, except for the following that may be included here: health and safety needs, emergency needs, and/or necessary needs to become compliant with Federal/State laws/regulations. Describe the needed item(s) in detail, including cost(s) and timeline(s). Explain how the item(s) aligns with one or more of the Strategic Initiatives of the Hawai'i Community College 2015-2021 Strategic Plan. Identify and discuss how the item(s) aligns with the Initiative's Goal, Action Strategy, and Tactic. [HAWCC Strategic Plan](#)**

All of our budget asks will be included in our future Comprehensive Review (2017) as instructed.

### **Part V. Comprehensive Review Information**

**Please provide a short summary regarding the last comprehensive review for this program. Discuss any significant changes to the Program since the last comprehensive review that are not discussed elsewhere.**

N/A

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**Required for ARPD Web Submission: Provide the URL to the specific location of this Unit's last Comprehensive Review on the HawCC Program/Unit Review website (see link on page 1):**



**D) Assessment Strategy/Instrument: See Above**

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**For each Course assessed in AY 2014-15, provide a brief description of the assessment strategy, including the type of student work or activity assessed how and when the assessment was conducted, how and why assessed artefacts were selected, and how the artefacts were analyzed.**

**E) Results of Program Assessment: See Above**

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**For each Course assessed in AY 2014-15, provide a summative description of the assessment results. Discuss how these results collectively demonstrate achievement of the Program's Learning Outcomes and support the College's Mission.**

**F) Other Comment**

**Include any additional information that will help clarify the assessment results. Include comparisons to any applicable College or Program standards, or to any national standards from industry, professional organizations, or accrediting associations. Include, if relevant, a summary of student survey results, CCSSE, e-CAFE, graduate-leaver surveys, special studies, or other assessment instruments used.**

**G) Next Steps**

**Based on the Program's overall AY 2014-15 assessment results, describe the Program's intended next steps to enhance instruction in order to improve student learning. Instructional changes may include, for example, revision to curriculum, teaching methods, learning outcome statements, student support, and other options. Please note here if proposed changes will involve Program and/or Course modifications requiring approval.**

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The ASNS is a new degree program at HawCC (began Fall 2014) that is very rapidly gaining student participation. In the fall of 2014 there were 12 students enrolled in the program. Now, in the Fall of 2015, the program enrollment has increased by almost 400% to 46 full time ASNS students. The vast majority of these students are designated in the Biological track with a minority in the Physical Science track. However, this program is currently relying on a cooperative agreement with UHH that provides a limited number of seats in all of the required introductory science and math courses in this program. HawCC does not currently have science lab facilities, or faculty to teach these courses. The coordinator of this program (Laura Brezinsky PhD.) is investigating available grant funds to assist with these needs. It is projected that construction of any new facilities would take at least 10 years due to the lengthy process required for construction. We are hopeful that outside (Federal) funding will expedite this endeavor.

**Part VII. Cost Per SSH**

Please provide the following values used to determine the total fund amount and the cost per SSH for your program:

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General Funds = \$ \_\_\_\_\_  
Federal Funds = \$ \_\_\_\_\_  
Other Funds = \$ \_\_\_\_\_  
Tuition and Fees = \$ \_\_\_\_\_

**Part VIII. External Data: N/A**

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If your program utilizes external licensures, enter:

Number sitting for an exam \_\_\_\_\_  
Number passed \_\_\_\_\_

[If your program does not utilize external licensures, skip Part IX.]