Student Services
Admissions & Records

UNIVERSITY of HAWAI'I
KAUA'I
COMMUNITY COLLEGE

June 6, 2013

TO: Institutional Research & Analysis Office

FR: Leighton Oride
Admissions Officer & Registrar

RE: UH Code Request Form: Associate in Science Natural Science

Enclosed find our submission for two (2) new majors with concentrations which were approved at the May 16, 2013 Board of Regents (BOR) meeting.

- **AS-NSCI-BSC** Biological Science
- **AS-NSC-PSC** Physical Science

At this writing, the BOR minutes are not yet published.

VC James Dire provided verification of its approval in his email to me of May 30, 2013.

Should you have any questions, please feel free to contact me via email at loride@hawaii.edu.

Thanks.

3-1901 Kaumualiʻi Highway
Līhuʻe, Hawaiʻi 96766-9500
Telephone: (808) 245-8225
Fax: (808) 245-8297

UNIVERSITY OF HAWAI'I
CODE REQUEST FORM FOR ACADEMIC PROGRAM CODES

REQUESTOR CONTACT INFORMATION	
Date: 6/3/13	Effective term of request (Semester-Year): Fall 2013
Name: Leighton Oride	Title: Admissions Officer & Registrar
Campus: Kauai Community College	Office/Department:
Phone: (808) 245-8226	Email: loride@hawaii.edu

1. PROGRAM CODE, MAJOR CODE, CONCENTRATION CODE		Banner forms: SMAPRLE, SOACURR, STVMAJR
Institution: Kauai CC (KAU)	College: Instructional	Department:
☑ New program code ☐ Change/replace existing program code:		
Level: ■ Undergraduate ☐ Graduate ☐ First-Professional ☐ Post-Baccalaureate ☐ Other:		
Degree: Associate in Science	Certificate:	
If requesting an existing Major code and/or Concentration code in Banner: Existing Major: Code Description	Existing Concentration: Code Description	
If requesting a new ■ Major code or ■ Concentration code that does not exist in Banner: New Code [4 char/space limit]: NSCI Description [30 char/space limit]: Natural Science If a similar major/concentration code exists in Banner, please list the code: NSCI-BSC Is this major/concentration code being used the same way at other UH campuses? Yes		
Is 50% or greater of the classes in this program offered at a location other than the Home Campus? ☐ Yes ☑ No (Please consult your Financial Aid Officer on Program Participation Agreement impact)		
Is this program/major/certificate financial aid eligible? ☑ Yes ☐ No (Financial Aid Officer consultation required for all new program codes)		
Should this program be available for applicants to select as their planned course of study on the online application? ☑ Yes ☐ No (If yes, students may select the code as their only program of study.)		

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Replacing or eliminating an existing program code:

If replacing an existing program code, are current students "grandfathered" under the old code? ☐ Yes ☐ No

Should the old program code be available for use in Banner? ☐ Yes ☐ No

Will the old program code be available for:

Banner Module	Yes	No	Ending Term (Semester-Year)
Online Application	☐	☐	
Recruitment	☐	☐	
Admissions	☐	☐	
General Student	☐	☐	
Academic History	☐	☐	

2. CERTIFICATES ONLY:

Does this certificate qualify as a Gainful Employment Program (Title IV-eligible certificate program)? ☐ Yes ☐ No
(Please consult your Financial Aid Officer or see: http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html)

For new certificates approved by the Chancellor, the related BOR authorized academic program is:

3. NEW CAMPUS, COLLEGE, DIVISION, OR DEPARTMENT CODE Banner forms: STVCAMP, STVCOLL, STVDIVS, STVDEPT

Campus code [3 char]:	Campus description [30 char/space limit]:
College code [2 char]:	College description [30 char/space limit]:
Division code [4 char/space limit]:	Division description [30 char/space limit]:
Department code [4 char/space limit]:	Department description [30 char/space limit]:

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4. NEW COURSE SUBJECT CODE (Subject Alpha)	Banner form: STVSUBJ
College:	Department:
Subject code [4 char/space limit]:	Subject description [30 char/space limit]:

5. NEW MINOR (Minor codes are listed on the Major code table)	Banner form: STVMAJR
Minor Code [4 char/space limit]:	Minor Description [30 char/space limit]:

Please briefly describe your request and explain why you are requesting the code(s):

SUPPORTING DOCUMENTATION

Please see the **Code Request Guide** for the required supporting documents to be submitted. Documents submitted with this form:

- ■ Board of Regents meeting minutes and supporting documents provided to the BOR
- ☐ Memo from UH President
- ☐ Memo from Chancellor
- ☐ Curriculum (required for requests for new programs/majors/minors/certificates)
- ☐ Gainful Employment Program notification to the US Department of Education
- ☑ Other: VC for Academic Affairs James Dire's email (BOR minutes not yet published)

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CAMPUS VERIFICATION

Requestor Signature _____ Date 6/03/13

Registrar (If different from Requestor)

Leighton Oride		6/03/13
Print name	Signature	Date

Email/memo in lieu of Registrar's signature may be attached

Financial Aid Officer (Financial Aid Officer consultation required for all new program codes)

Earl Nishiguchi		6-05-13
Print name	Signature	Date

Email/memo in lieu of Financial Aid Officer's signature may be attached

For Community Colleges, verification of consultation with OVRCC Academic Affairs:

James Dire		6/03/13
Print name	Signature	Date

Email/memo in lieu of signature may be attached

Send completed form and supporting documentation to:

Institutional Research and Analysis Office (IRAO)
1633 Bachman Place
Sinclair Annex 2, Room 4
Honolulu, HI 96822

Email: iro-mail@lists.hawaii.edu
Fax: 808-956-9870
Phone: 808-956-7532

After all required forms and supporting documents have been submitted, please allow at least two weeks for processing by IRAO and Banner Central.

FOR INTERNAL USE ONLY	Date form/docs received:
Program code [12]:	Program Description [30]:
CIP code [6]:	CIP description [30]:

Effective Fall	2013
Date Approved	3/13
Replaces	New

APPENDIX B
Kaua'i Community College
University of Hawai'i
Program Action Request

1. Type of Program Action: ☒ New ☐ Modification ☐ Deletion

PROPOSED	ASNS BIO
General Education Courses	
Foundations FW: ENG 100 or any FW designated course	3
Foundations FS: MATH 103 or higher	3-4
Foundations FG (6): Two courses from different time periods (FGA, FGB, or FGC)	
HIST 151 or REL 150	3
HIST 152 or REL 150	3
Diversification Literature, Arts, or Humanities: Any one DA, DL, or DH designated course	3
Diversification Natural Science: Any one course from DB or DP (can be fulfilled by required or elective course)	3-4
Diversification Social Science: ANTH 200, ANTH 220; BOT 105; ECON 130, ECON 131; POLS 110; PSY 100, PSY 220; SOC 100, SOC 210, SOC 230; SSCI 250; any DS designated course	3
General Education Subtotal	**21**
Concentration in Biological Sciences:	
BIOL 171	3
BIOL 171L	1
BIOL 172 (to be proposed)	3
BIOL 172L (to be proposed)	1
CHEM 161	3
CHEM 161L	1
CHEM 162	3
CHEM 162L	1
MATH 205	4
PHYS 151 (3 credits) or PHYS 170 (4 credits)	3-4
PHYS 151L or PHYS 170L	1
PHYS 152 or PHYS 272	3
PHYS 152L or PHYS 272L	1
SCI 170 (STEM Seminar) (to be proposed)	1
Biological Sciences Concentration Subtotal	**29**
Electives:	
Natural Science Electives: Minimum 9 credits of any college-level Natural Science courses (DB, DP, DY)	
Additional Electives to fulfill degree: Any transfer-level course	
Total Credits	**60**
Graduation Requirements: The following requirements need to be satisfied (double dipping assumed)	
Pacific Cultures: At least one course--ANTH 220; BOT 105; HWST; HAW 261, HAW 262; HIST 284, HIST 284K; PHIL 102; REL 205; or any PC designated course	
WI Requirement: At least one WI course	

* A minimum of 60 credits are required but the total and individual subtotals can vary depending on "double dipping" between general education, electives, and graduation requirements. For example, more than 60 credits may be necessary if WI and Pacific Cultures requirements are not double dipped with diversification requirements or electives. As another example, more than the minimum electives will be necessary if MATH 205 is applied to FS general education requirement or a required concentration course is applied to natural science diversification. Likewise, more than the minimum concentration credits will be required if PHYS 170 (4 credits) is taken instead of PHYS 151 (3 credits). Double dipping between concentration requirements and electives is not allowed. Students must earn a "C" or higher in all concentration courses and natural science elective courses.

2. **Program Type:**

- ☐ Associate in Applied Science (AAS)
- ☐ Associate in Arts (AA)
- ☐ Associate in Arts–Concentration
- ☐ Associate in Science (AS)
- ☒ Associate in Science Natural Sciences–Concentration (ASNS)
- ☐ Certificate of Achievement (CA)
- ☐ Certificate of Completion (CC)
- ☐ Certificate of Competence (CO)
- ☐ Academic Subject Certificate (ASC)

3. **Program Title:** Associate in Science in Natural Science with a Biological Science concentration

4. **Program Description (for catalog):**

The purpose of the Associate in Science in Natural Science (ASNS) degree is to address the needs of students interested in science, technology, engineering, and mathematics (STEM). Students can use the ASNS degree to better market their science background or in preparation for transfer to a four-year institution. The ASNS in Biological Sciences provides a clear pathway to properly prepare students for transfer with core introductory courses and laboratories in biology, chemistry, and physics typically required in the first two years of a broad range of biological science baccalaureate degrees at four-year universities.

Program Admission Requirements:

Kaua'i Community College (KCC) has an open door policy so that once students are admitted to the College they can designate themselves as Natural Science students and be in the program.

Graduation Requirements:

Students must complete at least 60 total credits consisting of at least 21 credits of general education requirements and at least 39 credits of discipline-specific science requirements and electives as outlined in the table in item 1. A GPA of 2.0 or higher for all courses applicable toward the degree is needed to meet graduation requirements.

5. **Program Student Learning Outcomes (PSLOs):**

Upon graduation, students will be able to:

1. Analyze data effectively using currently available technology.
2. Communicate scientific ideas and principles clearly and effectively.
3. Analyze and apply fundamental mathematical, physical, and chemical concepts and techniques to scientific issues.
4. Apply fundamental concepts and techniques in their chosen natural science field of study, such as biology, chemistry, engineering, physics, etc.

ASNS General Education Institutional Student Learning Outcomes (ISLOs)

1. Written Communication: Write in clear and organized Standard American English to present, explain, and evaluate ideas, to express feelings, and to support conclusions, claims, or theses.
2. Oral Communication: Speak in understandable and organized Standard American English to explain ideas, to express feelings, and to support conclusions, claims, or theses. Receive, construct meaning from, and respond to spoken and/or nonverbal messages.
3. Reading: Read, evaluate, and interpret written material critically and effectively.
4. Symbolic Reasoning: Use appropriate mathematical and logical concepts and methods to understand, analyze, and explain issues.
5. Integrative Thinking: Use problem-solving skills and creative thinking strategies to make connections among ideas and experiences and to synthesize and transfer learning to new and varied situations.
6. Information Literacy: Locate, retrieve, evaluate, and interpret the value of information gained from reading text materials, making observations, and using electronic media, and reflectively use that information.
7. Technological Competency: Identify, allocate, and utilize technological resources effectively.
8. Teamwork: Participate proactively and interact cooperatively and collaboratively in a variety of settings.

9. Respect for Diversity: Demonstrate cognitive, affective, and behavioral skills and characteristics that are respectful of others' opinions, feelings, values, and individual expression.
10. Ethics: Demonstrate an understanding of ethical issues in public and personal contexts that can be used to make sound judgments and decisions.

Alignment of ASNS program's stated PSLOs with the College's ISLOs.

	ANALYZE DATA	COMMUNICATE SCIENCE	ANALYZE CONCEPTS	APPLY CONCEPTS AND TECHNICS		WRITTEN COMMUNICATION	ORAL COMMUNICATION	READING	SYMBOLIC REASONING	INTEGRATIVE THINKING	INFORMATION LITERACY	TECHNOLOGICAL	TEAMWORK	RESPECT FOR DIVERSITY	ETHICS
PSLO (P)/GESLO (G)/ISLO (I)	P1	P2	P3	P4		I1	I2	I3	I4	I5	I6	I7	I8	I9	I10
Pacific Cultures														X	
Writing Intensive						X					X				
Written Communication (FW)						X		X		X					
Symbolic Reasoning (FS)									X	X					
Global Foundations (FG)								X			X			X	
Natural Science (DB or DP)										X		X			
Social Science (DS)														X	
Fine Arts, Humanities, or Literature (DA, DH, or DL)															
Biological Sciences Concentration Requirements	X	X	X	X			X		X	X		X	X		X

6. **Proposed Date of First Offering:** Fall 2013

7. **Is this program offered at another UH campus?** ☒ Yes ☐ No
If **Yes,** specify campus. If **No,** why is this program offered at KCC:

Kapi'olani CC, Leeward CC, and UH Maui College

8. **Reason for this Program Action:**

The ASNS degree addresses the needs of students interested in STEM fields, facilitates transfer to baccalaureate institutions, and fulfills College and system goals.

The ASNS degree encourages pursuit of the degree, highlights options, and reduces time in residence. Students enrolled at the College have continually expressed an interest in pursuing STEM fields and getting an ASNS degree at KCC. There is a clear financial and familial motive. Students can benefit by completing an Associate in Science (AS) degree on-island to save money in tuition fees and by living at home before transferring to a four-year institution.

Enrollment will include an expanded target audience, including high school students, who would be able to move directly into STEM-related fields. KCC currently lacks an AS pathway to transfer into STEM majors, and this may discourages students from attending KCC. Capable and interested high school students would no longer need to

bypass KCC simply because such a pathway to a Bachelor of Science (BS) degree in STEM is not available on Kaua'i.

The ASNS program provides a clear pathway to properly prepare students for transfer to a baccalaureate STEM program. Simply having the program in place allows students to more easily follow pathways towards their desired degree. This will reduce the number of credits a student typically takes before transfer. The program will increase the number of degrees awarded by the colleges since STEM students bypass KCC or often transfer before obtaining a degree at the four-year colleges. Kaua'i CC's ASNS is consistent with the ASNS degrees that already exist at other UHCCs.

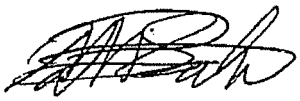
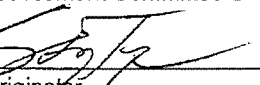
Students can use the ASNS to better market their science background or in preparation for transfer to a BS program at a four-year institution. Because of the alignment of the ASNS to baccalaureate programs, it will be easier for students to transfer to four-year programs that are key to careers in STEM-related fields. The proposed curriculum, including both the General Education and required STEM courses in the AS degree, were designed to facilitate articulation with STEM programs at UH Hilo and UH Mānoa. Likely degree pathways in the state include, for example, baccalaureate degrees in Agriculture, Animal Science, Cell Biology, Biology, Botany, Ecology, Conservation, Environmental Studies, Environmental Science, Genetics, Marine Science, Microbiology, Physiology, Pre-Pharmacy, and Zoology.

Campus and UH System STEM initiative goals suggest each campus should be doing more to encourage STEM enrollment and STEM degrees. Creating an ASNS will help fulfill the UH System and KCC campus Strategic Plan goal and outcome of "increasing degree completion in STEM fields." The second sentence on the UHCC system webpage states: "All [Community College campuses] offer liberal arts and sciences courses for students preparing to transfer to baccalaureate institutions...". There are national trends that show the importance of a strong STEM program at the community college level. It is reported that 44% of students who successfully completed a bachelor's or master's degree in science or engineering at the beginning of this decade, attended a community college at some point in their education (C&EN, Chemical and Engineering News, Nov. 15, 2010). This was derived from analysis of the National Science Foundation NSF "Characteristics of Recent Science and Engineering Graduates: 2006 (http://www.nsf.gov/statistics/nsf10318/start.cfm).

The ASNS may also fulfill other goals and outcomes: increasing degrees completed, increasing degrees in programs that lead to occupations where the wage is above the US average, and increasing the number of students transferring to UH Mānoa, UH Hilo, and UH West O'ahu.

A 2007 publication from the National Academy of Sciences, "Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future" describes how increasing the size of the nation's workforce skilled in STEM fields is an important key to our nation's economic future. Hawai'i is no exception in this regard. That is why KCC, UH system, and state (e.g. ACT 111) have put forth initiatives to promote STEM education.

Overall U.S. unemployment remains relatively high, yet STEM industries are an exception. A 2008 study by the Interagency Aerospace Revitalization Task Force (available online) echoed the 2007 National Academies publication: graduates with STEM degrees are in demand. But, the current rate of graduates in STEM fields is projected to fall far short of impending demand. Thus, the ASNS can also help KCC in the workforce development portion of its mission.

PSLOs Approved by:		3/1/13
	Assessment Committee Chairperson	Date
Proposed by:		3/1/13
	Originator	Date
Requested by:		3/1/13
	Department/Division Chairperson	Date

Approved by:

Curriculum Committee Chairperson	Date 3/1/13
Vice Chancellor for Academic Affairs	Date 3/1/13
Chancellor	Date 3/1/13

From: James Dire [mailto:dire@hawaii.edu]
Sent: Thursday, May 30, 2013 1:02 PM
To: Leighton Oride
Subject: Re: Fall 2013: Associate in Science - Natural Science

It's in the minutes whether they are posted or not. Pearl should be okay with knowing it was approved at that meeting.
Jim

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On 5/30/13 9:52 AM, "Leighton Oride" <loride@hawaii.edu> wrote:

The May 16, 2013 minutes have not been posted yet: http://www.hawaii.edu/offices/bor/archive/
Do you have any other approval document ?
If none, I'll ask IRAO Director Pearl Imada Iboshi if she will accept our IRAO code request forms based on just the contents of this email.

Thursday, May 16, 2013: AGENDA
Community Colleges
5. Approval of Associate in Science (AS) Degree in Natural Science as a Provisional Program

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From: James Dire [mailto:dire@hawaii.edu]
Sent: Friday, May 17, 2013 1:41 PM
To: Leighton Oride
Subject: Re: ASNS

It is reflected in the minutes of May 16, 2013.
Jim

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On 5/17/13 1:32 PM, "Leighton Oride" <loride@hawaii.edu> wrote:
We have IRAO code request forms on hold pending the approval.
Will the approval be reflected in the BOR minutes or official memorandum issuance ?

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From: owner-kauaicc-everyone@LISTS.HAWAII.EDU [mailto:owner-kauaicc-everyone@LISTS.HAWAII.EDU] **On Behalf Of** James Dire
Sent: Friday, May 17, 2013 12:12 PM
To: KCC Everyone
Subject: ASNS

Great News!

Yesterday the Board of Regents approved Kauai CC to start offering Associate of Science in Natural Sciences (ASNS) Degrees. The proposal they approved was a joint submission with Windward CC, Honolulu CC and Hawaii CC. All four colleges can now offer this transfer level degree. which is a better fit for students transferring into STEM bachelor's degree programs than an AA in Liberal Arts. The ASNS degree can also directly lead to gainful employment.

Many thanks to Dr. Steve Taylor for spearheading the KCC effort for the ASNS and Windward's Dean Brian Richardson for leading the four-campus effort.

The ASNS degree offers concentrations in Physical Sciences and Biological Sciences. We can add other concentrations in the future and certificates under this degree..

Aloha nui loa,

James R. Dire, Ph.D.
Vice Chancellor for Academic Affairs
University of Hawai'i-Kaua'i Community College
3-1901 Kaumualii Highway
Lihue, HI 96766

Voice (808) 245-8229
Fax (808) 245-0101