IRAO OFFICE USE ONLY	
Received	
In Banner	
MTVCOMP/Codeset	
Master Curriculum	
CIP Code	
Program Code	
Program Description	

University of Hawai'i
Code Request Form for Academic Programs for

NEW OR MODIFY PROGRAM CODE

Reset Form

☑ **New Program Code** ☐ **Modify Program Code** Date: 10 April 2017

REQUESTOR CONTACT INFORMATION

Name: Susan Kazama
Title: Interim Vice Chancellor for Academic Affairs
Office/Dept: Academic Affairs
Campus: Kapiolani CC
Email: smurata@hawaii.edu
Phone: 808-734-9519

NEW PROGRAM CODE TO CREATE

Institution: KAP - Kapiolani CC
Campus: KAP - Kapiolani CC
Level: UG - Undergraduate
Effective Term: Fall 2017

	Code (Max. Characters)	Description	Check if requesting new code:
College	(2) AR	Arts & Sciences	☐ See Banner form STVCOLL
Department	(4) AR	Arts & Sciences	☐ See Banner form STVDEPT
Degree/Certificate	(6) CA	Certificate of Achievement	☐ See Banner form STVDEGC
Major	(4) NSCI	Natural Science	☐ See Banner form STVMAJR
Concentration	(4) BSC	Biological	☐ See Banner form STVMAJR
Minor	(4)		☐ See Banner form STVMAJR

If a similar major/concentration code exists in Banner, please list the code:

Justification to warrant a new major/concentration code similar to an existing major/concentration code:

Is this major/concentration code being used the same way at the other UH campuses? ☑ Yes ☐ No

Should this program be available for applicants to select as their planned course of study on the online application? *If yes, student may select the code as their only program of study.* ☑ Yes ☐ No

RULES PERTAINING TO FINANCIAL AID AND 150% DIRECT SUBSIDIZED LOAN LIMIT LEGISLATION

Is 50% or greater of the classes in this program offered at a location other than the Home Campus? ☐ Yes ☑ No

Is this program/major/certificate financial aid eligible? ☑ Yes ☑ No

Does this certificate qualify as a Gainful Employment Program (Title IV-eligible certificate program)? ☐ Yes ☑ No
See http://www.ifap.ed.gov/GainfulEmploymentInfo/index.html

Program Length
In academic years; decimals are acceptable. The length of the program should match what is published by the campus in any online and/or written publication. 2.0

Special Program Designations ☐ A ☐ B ☑ N ☐ P ☐ T ☐ U
See Special Program Designations Code Definitions on IRAO Program Code Request webpage

Required Terms of Enrollment: ☑ Fall ☑ Spring ☐ Summer ☐ Extended

University of Hawai'i
Code Request Form for Academic Programs

NEW OR MODIFY PROGRAM CODE

ADDITIONAL COMMENTS

Approved by Chancellor 5 April, 2017

ATTACHMENTS

BOR Approved: Associate, Bachelor and Graduate Degrees, and sole credential certificates

☐ BOR Meeting Minutes & Supporting Documents ☐ Curriculum

Chancellor Approved: Certificates related to authorized BOR program & Associate in Technical Studies (ATS) Degree

☑ Memo from Chancellor to notify VPAA about new program ☑ Curriculum

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

VERIFICATIONS

By signing below, I verify that I have reviewed and confirm the above information that is pertinent to my position.

Registrar:

Print Name	Signature	Date
JERILYNN L. ENOKAWA	Jerilynn L. Enokawa	5/2/17

Financial Aid Officer:

Print Name	Signature	Date
Jennifer Bradley		5/2/17

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

Print Name	Signature	Date
Suzette Robinson		

UNIVERSITY of HAWAI'I SYSTEM

John Rand
Director for STEM Education

August 28, 2015

MEMORANDUM

TO: Joni Onishi, Vice Chancellors for Academic Affairs, Hawai'i CC
Katy Ho, Vice Chancellors for Academic Affairs, Honolulu CC
Louise Pagotto, Vice Chancellors for Academic Affairs, Kapi'olani CC
James Dire, Vice Chancellors for Academic Affairs, Kaua'i CC
Michael Pecsok, Vice Chancellors for Academic Affairs, Leeward CC
John McKee, Vice Chancellors for Academic Affairs, UH Maui College
Ardis Eschenberg, Vice Chancellors for Academic Affairs, Windward CC

VIA: Risa Dickson, Vice President for Academic Affairs

FROM: John Rand, Director for STEM Education

SUBJECT: CHANGES TO THE ASSOCIATE OF SCIENCE IN NATURAL SCIENCE (ASNS) DEGREE

On May 1, 2015 the UH Community College (UHCC) Vice Chancellors for Academic Affairs (VCAA) met with the UH System Director of STEM Education and other UHCC administrators to discuss the ASNS degree. At that meeting VCAAs agreed that the ASNS degree would have four concentrations:

1. Biological Sciences – AS-NSCI-BSC
2. Engineering – AS-NSCI-ENGR
3. Information and Communications Technology – AS-NSCI-ICT
4. Physical Sciences – AS-NSCI-PSC

This change will eliminate confusion, allow the UH System to more easily to track and report student enrollment, retention, transfer and graduation, help to clarify articulation, and will simplify the message to students, college advisors and high school counselors.

To fulfill this agreement the following changes need to be completed with an effective date of Fall 2016:

- Hawai'i Community College:
  No action
- Honolulu Community College:
  No action
- Kapi'olani Community College:
  Change AS-NSCI-CSCI to AS-NSCI-ICT
  Change AS-NSCI-LFSC to AS-NSCI-BSC

1633 Bachman Place, Sinclair Annex 1-1
Honolulu, Hawai'i 96822
Telephone: (808) 956-6872
Fax: (808) 956-6976

- Kaua'i Community College:
  Delete AS-NSCI-PBS (recommend AS degree)
- Leeward Community College:
  Change AS-NSCI-CSCI to AS-NSCI-ICT
  Change AS-NSCI-LFCI to AS-NSCI-BSC
- Maui College:
  No action
- Windward Community College:
  No action

Currently, there are multiple descriptions for AS-NSCI-ENGR in the UH Banner System for the same code. The Office of STEM Education with coordinate with the Institutional Research and Analysis Office to eliminate the multiplicity and adopt a single common ASNS ENGR Banner description. No action is required by the campuses.

All future requests are to fit in one of the four concentrations listed above. Additional ASNS concentrations will need to be approved by the UHCC VCAAs in conjunction with the Office of STEM Education.

If you have any questions or comments please feel free to contact me at:
John Rand, jrand@hawaii.edu, (808) 956-6872.

c: Joanne Itano, Associate Vice President for Academic Affairs
Reed Dasenbrock, Vice Chancellor for Academic Affairs, UH Mānoa
Matthew Platz, Vice Chancellor for Academic Affairs, UH Hilo
Doris Ching, Interim Vice Chancellor for Academic Affairs, UH West O'ahu

UNIVERSITY of HAWAI'I®
KAPI'OLANI
COMMUNITY COLLEGE

April 28, 2017

TO: Risa Dickson
Vice President for Academic Affairs

FROM: Louise Pagotto
Interim Chancellor, Kapi'olani Community College

SUBJECT: Request Code for New Certificate at Kapi'olani Community College

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Per John Rand's memo dated August 28, 2015, on May 1, 2015, the UHCC VCAAs met with the UH System Director of STEM Education and other UHCC administrators to discuss the ASNS degree. At that meeting, it was agreed by the VCAAs that the ASNS degree would have four concentrations:

1. Biological Sciences – AS-NSCI-BSC
2. Engineering – AS-NSCI-ENGR
3. Information and Communications Technology – AS-NSCI-ICT
4. Physical Sciences – AS-NSCI-PSC

As a result of this agreement, effective fall 2017, Kapi'olani Community College has created a new Certificate of Achievement in Biotechnology under the AS-NSCI-BSC to replace the previous Certificate of Achievement in Biotechnician. The approved proposal for the Certificate of Achievement in Biotechnology is attached. Please note that Kapi'olani CC now uses the digital database Kuali Student Curriculum Management (KSCM) for the approval process.

Kapi'olani Community College is submitting a code request for CA-NSCI-BSC.

4303 Diamond Head Road
Honolulu, Hawai'i 96816-4421
Telephone: (808)734-9565
Facsimile: (808)734-9162
Website: www.kapiolani.hawaii.edu

CA-NSCI-BSC | Certificate of Achievement in Biotechnology

Future | Fall 2017 — Indefinite

BANNER CODE FOR PROGRAM
CA-NSCI-BSC

CIP CODE FOR PROGRAM

BANNER TITLE FOR PROGRAM
Certificate of Achievement in Biotechnology

A.) General Catalog Information (ʻIke Moʻohaʻawina)

A.1) PROGRAM TITLE (POʻO PAPAHANA)
Certificate of Achievement in Biotechnology

A.2) PROGRAM LEVEL TYPE (KŪLANA PAPAHANA)
Certificate

A.3) DEGREE TYPE (ʻANO O KE KĒKELĒ)
Certificate of Achievement

A.4) PROGRAM DESCRIPTION FOR CATALOG (HULIKOʻA PAPA NO KA MOʻOHAʻAWINA)
Biotechnology is a commercial, medical or research endeavor that uses living cells or their components to create useful products. The applications of biotechnology are widely employed in pharmaceuticals, fermentation technologies agriculture, the diagnosis and prevention of disease, vaccine development and production, forensics and bioremediation.

The Certificate of Achievement in Biotechnology prepares students for entry-level employment in the biotechnology industry and research labs. Students learn basic laboratory skills, equipment operation and maintenance, quality control, safety and good manufacturing practices.

A.5) CAREER OPTIONS FOR CATALOG (NĀ KOHO ʻOIHANA NO KA MOʻOHAʻAWINA)
Entry-level employment in the biotechnology industry and research labs.

A.6) Catalog Grid

- Biotech Matrix for Students.doc (/api/cm/files/0669a525-1e63-4df2-af33-c32c7ca1431b)

A.7) CURRICULUM GRID COMMENTS (MANAʻO KŪ PAPA HAʻAWINA)
The issuance of a Certificate of Achievement requires that the student must earn a grade point ratio (GPR) of 2.0 or higher for all courses applicable toward the certificate.
Please note: For the Certificate of Achievement in Biotechnology, a grade of "C" or higher must be maintained in all required courses.

A.8) MISSION STATEMENT (ALA NUʻUKIA)

A.9) PROGRAM ACCREDITATION INFORMATION (ʻIKEPILI HUI ʻĀPONO POLOKALAMU)

A.10) APPLICATION PERIOD TO BE LISTED IN THE CATALOG

B.) Program Learning Outcomes

B.1) PROGRAM LEARNING OUTCOMES (PAPAHANA KŪLEʻA ʻLKE)
CA - Biotechnology - Demonstrate competence in performing fundamental laboratory procedures and protocols common to biotechnology research, development and production in the fields of molecular biology, bacteriology, cell biology, biochemistry and immunology.
LINKED COURSE OUTCOMES
--- None ---
CA - Biotechnology - Apply the scientific method to experiment and conduct research logically and safely following all safety, operational and record keeping protocols and apply knowledge to formulate and test hypotheses and analyze results and troubleshoot problems as well as to anticipate biological, chemical and other hazards.
LINKED COURSE OUTCOMES
--- None ---
CA - Biotechnology - Analyze, research, and synthesize laboratory and published data using appropriate bioinformatics computational tools and software, and report results in standard scientific formats such as poster, oral and written presentations.
LINKED COURSE OUTCOMES
--- None ---

C.) Program Requirements

C.1) PROGRAM ENTRANCE REQUIREMENTS/PREREQUISITES (KOINA KOMO)

First Semester

Rules for Entire Rule Category

- Completed at least 1 courses from: Courses from -
  - ENG 100 - Composition I
  - ESL 100 - Composition I
- And earned a minimum grade of C in each of the following:
  - MATH 135 - Precalculus: Elementary Functions
  - CHEM 161 - General Chemistry I
  - CHEM 161L - General Chemistry I Lab
  - MICR 130 - General Microbiology
  - MICR 140 - General Microbiology Lab

Rules for Rule Subcategories

Second Semester

Rules for Entire Rule Category

- Earned a minimum grade of C in each of the following:
  - CHEM 162 - General Chemistry II
  - CHEM 162L - General Chemistry II Laboratory
  - BIOL 171 - Introduction to Biology I
  - BIOL 171L - Introduction to Biology I Lab
  - MICR 161 - Immunology and Protein Chemistry

Rules for Rule Subcategories

Third Semester

Rules for Entire Rule Category

- Earned a minimum grade of C in each of the following:
  - CHEM 272 - Organic Chemistry
  - CHEM 272L - Organic Chemistry Lab I
  - BIOL 172 - Introduction to Biology II
  - BIOL 172L - Introduction to Biology II Lab

Rules for Rule Subcategories

Fourth Semester

Rules for Entire Rule Category

- Earned a minimum grade of C in each of the following:
  - BIOL 275 - Cell and Molecular Biology
  - MICR 230 - Molecular Biology
  - SCI 295MI - STEM Research Experience in Microbiology and/or Molecular Biology
- And completed at least 1 courses from: Courses from -
  - BIOL 275L - Cell and Molecular Biology Lab
  - MICR 240 - Cell Biology and Tissue Culture

Rules for Rule Subcategories

C.2) SATISFACTORY PROGRESS REQUIREMENTS (KOINA HOLOMUA KŪPONO)
The minimum required GPR will be set as 2.0 (C) and the minimum acceptable grade will be set as 2.0 (C).

No Rules

C.3) PROGRAM COMPLETION REQUIREMENTS (KOINA PAPAHANA HOʻOPAU)
A minimum of 43 credits from the first, second, third and fourth semester sequence of required courses.

No Rules

C.4) STAR GPS REGISTRATION PRIORITY LIST

- [CA in Biotechnology] STAR GPS REGISTRATION PRIORITY LIST.docx (/api/cm/files/b36b8b37-4f50-4ddb-b735-6c7e661c3d45)

D.) BOR Information Pre-Fall 2016 (ʻIke Pili Papa o NĀ Kahu Kula)

D.1) PROGRAM JUSTIFICATION (HOʻĀPONO PAPAHANA)

D.2) PROGRAM MISSION AND OBJECTIVES (PAPAHANA ALA NUʻUKIA ME KA PAHUHOPU HĀIKI)

D.3) PROGRAM CURRICULUM PLAN (MOʻOHAʻAWINA)

D.4) PROGRAM TARGET GROUP (NA WAI E KOMO)

D.5) PROGRAM RESOURCES (PONO PAPAHANA)

D.6) PROGRAM EFFICIENCY (PAPAHANA HOLO PONO)

D.7) PROGRAM EFFECTIVENESS (PAPAHANA KŪLEʻA)

D.8) ATTACH A BOR SUBMISSION HERE

D.9) ATTACH A MEMO CONFIRMING BOR APPROVAL HERE

E.) New Academic Programs Fall 2016 and Later

E.1) PROGRAM PURPOSE AND OUTCOMES

E.1a) DESCRIBE THE PURPOSE OF THE PROPOSED PROGRAM IN TERMS OF MEETING STUDENT, COMMUNITY OR STATE NEEDS

E.1b) IDENTIFY THE PROGRAM OUTCOMES, WHAT THE STUDENT WILL KNOW AND BE ABLE TO DO AT THE COMPLETION OF THE PROGRAM.

E.1c) DESCRIBE THE FIT OF THE PROPOSED PROGRAM WITH SYSTEM/CAMPUS MISSION AND STATE NEED.

E.2) PROGRAM ORGANIZATION

E.2a) PROVIDES A DESCRIPTION OF CURRICULUM ORGANIZATION, TOTAL CREDITS TO COMPLETE THE PROGRAM INCLUDING ALL PREREQUISITE REQUIREMENTS, ADMISSION POLICIES, ADVISING, AND OTHER ASPECTS OF THE PROGRAM, WITH REFERENCE TO ITS GOALS/OUTCOMES.

E.2b) INCLUDES AN ACADEMIC MAP FOR CERTIFICATE OF ACHIEVEMENT, ASSOCIATE AND BACHELOR DEGREES THAT DEMONSTRATES ON TIME COMPLETION.

E.2c) PROVIDES JUSTIFICATION FOR A PROGRAM THAT IS MORE THAN 30 CREDITS FOR A CERTIFICATE OF ACHIEVEMENT OR 60 CREDITS FOR AN ASSOCIATE DEGREE OR 120 CREDITS FOR A BACHELOR'S DEGREE.

E.2d) DESCRIBES PROVISIONS FOR ARTICULATION WITH UH COMMUNITY COLLEGE DEGREES FOR BACHELOR'S DEGREES.

E.3) STUDENT DEMAND

E.3a) DESCRIBES THE PROFILE OF STUDENTS WHO WILL LIKELY ENROLL IN THE PROGRAM AND INCLUDES A DISCUSSION ON THE LIKELIHOOD OF THE PROGRAM ATTRACTING NEW STUDENTS TO THE CAMPUS OR EXISTING STUDENTS.

E.3b) PROVIDES EVIDENCE OF STUDENT INTEREST (I.E. NEEDS ASSESSMENT).

E.3c) INCLUDES AN ESTIMATE NUMBER OF MAJORS PER YEAR WITH AN EXPLANATION ON HOW THIS NUMBER WAS DETERMINED.

E.4) PROGRAM RESOURCES AND EFFICIENCY

E.4a) DESCRIBE RESOURCES REQUIRED FOR PROGRAM IMPLEMENTATION AND FIRST CYCLE OPERATION.

E.4b) DESCRIBE THE EXPECTED SOURCES OF FUNDS, INCLUDING SOURCES OF REALLOCATED FUNDS.

E.4c) COMPARE ANTICIPATED COST PER SSH, COST PER MAJOR, SSH/FACULTY, AVERAGE CLASS SIZE OR OTHER QUANTITATIVE MEASURE WITH OTHER PROGRAMS IN THE COLLEGE AND SIMILAR PROGRAMS ON OTHER UH CAMPUSES.

E.4d) LIST SIMILAR PROGRAMS AT OTHER UH CAMPUSES AND DESCRIBE HOW THE PROPOSED PROGRAM DIFFERS OR IS SIMILAR TO THESE PROGRAMS. PROVIDE THE RATIONALE FOR THE NEW PROGRAM IF A SIMILAR PROGRAM OR PROGRAMS EXIST.

E.5a) DESCRIBE THE PLAN FOR ASSESSING THE QUALITY OF STUDENT LEARNING.

E.5b) IDENTIFY RELEVANT PROGRAM ACCREDITATION AND PLANS TO MEET ACCREDITATION REQUIREMENTS.

E.6) ATTACH A COMPLETED DOCUMENT WITH ALL OF THE INFORMATION FROM 1-5 ABOVE. NOTE THAT THE PAGE LIMIT IS 15 PAGES.

F. Attachments (Pāku‘ina)

F.1) ATTACH MEMO OR OTHER DOCUMENT(S) FROM ACCREDITING BODY HERE (IF APPLICABLE).

F.2) ATTACH MISCELLANEOUS DOCUMENT(S) HERE.

G.) Academic Affairs

G.1) INITIAL CODE REQUEST TO IRAO

- Code Request - ASNS- CA in BioTechnology.pdf (/api/cm/files/58fea214014dc00001dd4987)

G.2) COPY OF THE MEMO FROM THE CHANCELLOR TO THE THE UH SYSTEM VPAA

G.3) PREVIOUS VERSIONS OF THE PROGRAM

H.) Instructions