NEW OR REPLACE PROGRAM CODE

| ■ New | Prog | ran | n Code [| R | Repla | ce P | rogram (| Code | | Date: | 1/30/ | /2024 | |
|---|-----------|--------|--|--------------------------|-----------|---------|-------------------------|-------------------------|-------|----------|---------|---------|-------|
| REQUESTOR | R CON | TAC | CT INFORMA | TION | | | | | | | | | |
| Name | Shelb | y Iv | vamoto | | | | Campus | UH Hilo | | | | | |
| Title | Acad | Cui | rriculum & Gr | ad Pro | Offc | r | Email | shelbyw | /@ha | awaii.e | edu | | |
| Office/Dept | Ofc V | ice | Chancellor fo | r Aca | d Aff | | Phone | 808-932 | -792 | 27 | | | |
| | | | | | | | | | | | | | |
| NEW PROGI | RAM (| COE | DE TO CREAT | E | | | | | | | | | |
| Institution | HIL | | | | | | Campus | HIL | - | | | | |
| Level F | PR | | | Effective Term Fall 2024 | | | | | | | | | |
| _ | | | Code (Max. Characters) | | | Desc | cription | | Ch | eck if r | equesti | ing new | code: |
| College | | (2) | PH | Danie | el K. In | ouye (| College of P | harmacy | | See Ba | nner fo | rm STVC | OLL |
| Department | | | PHPP | Pha | rmacy | Prac | ctice | | | See Ba | nner fo | rm STVD | EPT |
| · · · · · · · · · · · · · · · · · · · | | | Subj | Subject Certificate | | | | See Banner form STVDEGC | | | | | |
| Major | | (4) | PHRM | Pha | macy | , | | | | See Ba | nner fo | rm STVN | /IAJR |
| | | | Pharmaceutical Science Innovation | | | | See Banner form STVMAJR | | | | | | |
| Minor (4) | | | | | | | See Banner form STVMAJR | | | | | | |
| If a similar ma | jor/con | cent | tration code exis | ts in Ba | nner, p | lease | list the code | : | | | | | |
| Justification to | o warra | nt a | new major/cond | entrati | on code | e simil | ar to an exis | ting major/o | conce | ntratio | n code: | | |
| Requesting | new c | ode | - PI: Pharma | ceutic | al Sci | ence | Innovation | า | | | | | |
| | | | | | | | | | | | | | |
| Is this major/c | concent | ratio | on code being us | ed the | same w | ay at | the other UF | l campuses? | ? | | Yes | Х | No |
| • | - | | vailable for appl ? <i>If yes, student ma</i> y | | | | • | | ıdy | | Yes | X | No |
| RULES PER | TAINII | NG 1 | TO FINANCIA | L A ID | AND 1 | 50% | DIRECT S | UBSIDIZE | D LO | AN LI | MIT L | EGISLA | TION |
| Is 50% or grea Campus? | iter of t | he cl | lasses in this pro | gram o | ffered a | at a lo | cation other | than the Ho | me | | Yes | X | No |
| Is this progran | n/majo | r/cer | rtificate financia | l aid eli | gible? | | | | | | Yes | X | No |
| program)? | | • | fy as a Gainful E EmploymentInfo/index | | nent Pro | ogram | (Title IV-elig | gible certific | ate | | Yes | X | No |
| Program Leng In academic years; any online and/or w | decimals | | ceptable. The length o | f the progi | ram shoul | d match | what is publishea | l by the campus | in _ | 4 yeaı | 'S | | |
| Special Program See Special Program Program Code Requ | m Designo | ations | ions Code Definitions on L | RAO | | Α | В | ■ N | | Р | | Γ |] υ |
| Required Tern | ns of Er | rollr | nent: 🔳 F | all | | | Spring | | umm | er | | Extend | ed |

Form modified: Oct 20208

NEW OR REPLACE PROGRAM CODE

EXISTING PROGRAM CODE TO REPLACE, IF APPLICABLE

| Program Code | | Program D | escription | | | |
|---------------------------------|------------------------|---|------------------|---|-----------------|-------------|
| Institution | | Campus | UI | H Hilo | | |
| College | | Departme | nt | | | |
| Level | | | | | | |
| Are current students | grandfathered" | under the program code? | | | Yes | ☐ No |
| Should the old progr | am code be availa | ble for use in Banner? | | | Yes | ☐ No |
| Effective Term (ie | , old e. Fall 2020) | program code will no lon | ger be available | to admit or rec | ruit students | i. |
| == | | recruitment (effects Banner f AAQUIK, and SAAQUAN) Bai | | nd SRAQUIK) and a | admissions (eff | ects Banner |
| Effective Term (ie | , old e. Fall 2020) | program code will no lon | ger be available | e to award degre | ee to student | s. |
| This will turn off the modules. | general student (efj | fects Banner form SGASTDN) | and academic hi | story (effects Bann | ner form SHADI | EGR) Banner |
| ATTACHMENTS | | | | | | |
| | credential Certifica | ate, Associate, Bachelor a | nd Graduate De | grees, and sole c | redential cer | tificates |
| | utes & Supporting | | | riculum | | |
| Chancellor Approved | : Concentrations, | Certificates and Associate | in Technical Stu | idies (ATS) Degre | ee | |
| Memo from Chan | cellor to notify Vid | ce President for Academic | Planning and P | olicy regarding p | rogram actio | n. |
| Curriculum | | | | | | |
| CERTIFICATES ONLY | : Please check one | e (1) statement. This certi | ficate is a | | | - |
| ☐ BOR approved c | ertificate. BOR M | eeting/Approval Date: | | | | |
| Chancellor appro | oved within an aut | thorized BOR program. BO | OR Program: Pl | HARMD-PHRI | Л | |
| Chancellor appro | oved CO in accord | ance with UHCCP 5.203, S | ection IV.B.10. | | | |
| | | | | | | |
| VERIFICATIONS | | | | | | |
| By signing below, I ve | erify that I have re | viewed and confirm the d | above informati | on that is pertin | ent to my po | sition. |
| Registrar (Print Name) | | Financial Aid Officer (Print Name) | | For Communi verification of OVPCC Acade | f consultation | n with |
| Chelsea Kay-W | ong | Sherrie Padilla | | Tammi Oyado | | |
| COS462 Phog | Feb 14, 2024 | Sherrie K. Padilla | Feb 14, 2024 | | | |
| Signature | Date | Signature | Date | Signature | | Date |
| | | | | | | |

ADDITIONAL COMMENTS

New program code: GCER-PHRM-PI: Pharmaceutical Science Innovation Graduate Certificate, Eff Fall 2024 Curriculum Link: https://hilo.kuali.co/cm/#/programs/view/655d3cc1b496bf00c79966fa 4 years because it has to be done within the PharmD

Form modified: Oct 2020

GCER-PHRM-PI- New Program Code Request Form F2024

Final Audit Report 2024-02-14

Created: 2024-01-31

By: Shelby Wong (shelbyw@hawaii.edu)

Status: Signed

Transaction ID: CBJCHBCAABAA3H0h9-kT2fQKbc_YKD9qosWSul9F2Q9L

"GCER-PHRM-PI- New Program Code Request Form F2024" Hi story

- Document created by Shelby Wong (shelbyw@hawaii.edu) 2024-01-31 7:44:21 PM GMT- IP address: 132.160.127.240
- Document emailed to Chelsea Kay-Wong (ckwong@hawaii.edu) for signature 2024-01-31 7:46:30 PM GMT
- Document e-signed by Chelsea Kay-Wong (ckwong@hawaii.edu)

 Signature Date: 2024-02-14 9:34:52 PM GMT Time Source: server- IP address: 132.160.57.6
- Document emailed to Sherrie Padilla (sherriep@hawaii.edu) for signature 2024-02-14 9:34:54 PM GMT
- Email viewed by Sherrie Padilla (sherriep@hawaii.edu) 2024-02-14 9:41:22 PM GMT- IP address: 132.160.57.253
- Document e-signed by Sherrie Padilla (sherriep@hawaii.edu)
 Signature Date: 2024-02-14 9:41:41 PM GMT Time Source: server- IP address: 132.160.57.253
- Agreement completed. 2024-02-14 - 9:41:41 PM GMT



January 25, 2024

MEMORANDUM

TO: Bonnie D. Irwin

Chancellor

University of Hawai'i at Hilo

FROM: Keiki Kawai'ae'a

Interim Vice Chancellor for Academic Affairs

University of Hawai'i at Hilo

SUBJECT: Request for Approval of New Program Codes for use at UH Hilo- Fall

Keehi Willawaiaca

2024

SPECIFIC ACTION REQUESTED:

We request that the following new program codes be approved for use. The below are new Subject Certificates and Graduate Certificates under a BOR approved program approved for Fall 2024 via the campus curriculum review process.

New Subject Certificates under a BOR approved degree program:

SC-ADJ-CRIM Criminal Justice

Home Program: BA-Administration of Justice

College of Arts and Sciences
*New Subject Certificate

SC-AG4-WLDS Wildlife Science

Home Program: BS- Agriculture

College of Agriculture, Forestry & Natural Resource Management

*New Subject Certificate

SC-KES-FITR Fitness Trainer Preparation

Home Program: BA-Kinesiology and Exercise Science

College of Natural and Health Sciences

*New Subject Certificate

New Graduate Certificates under a BOR approved degree program:

SC-PHRM-PI Pharmaceutical Science Innovation

Home Program: PharmD- Doctor of Pharmacy

Daniel K. Inouye College of Pharmacy

*New Graduate Certificate

Chancellor Bonnie D. Irwin January 25, 2024 Page 2

SC-PHRM-VP Veterinary Pharmacy

Home Program: PharmD- Doctor of Pharmacy

Daniel K. Inouye College of Pharmacy

*New Graduate Certificate

RECOMMENDED EFFECTIVE DATE:

We request the effective date of Fall 2024.

ADDITIONAL COST:

There is no additional cost associated with this request.

PURPOSE:

The purpose of this request is to request approval for new program codes from the UH System Institutional Research, Analysis and Planning (IRAPO) office for the abovementioned degree programs and subject certificates.

ACTION RECOMMENDED:

We recommend that you approve the new program codes for use for the abovementioned degree and certificate programs.

APPROVED/DISAPPROVED: Approved

| | <u>NIE D. IWIN</u> Irwin (Jan 25, 2024 09:15 HST) | Jan 25, 2024 |
|------|--|------------------------------|
| Bonr | nie D. Irwin, Chancellor | Date |
| KK:s | i | |
| Cc: | Office of the Vice President f | or Academic Strategy (OVPAS) |

Chancellors Memo Fall 2024 New Program Codes

Final Audit Report 2024-01-25

Created: 2024-01-25

By: Shelby Wong (shelbyw@hawaii.edu)

Status: Signed

Transaction ID: CBJCHBCAABAAdTgY1AXAlCu7MzSccsZcu95LnGyV_Ftl

"Chancellors Memo Fall 2024 New Program Codes" History

- Document created by Shelby Wong (shelbyw@hawaii.edu) 2024-01-25 5:40:59 PM GMT- IP address: 132.160.67.42
- Document emailed to Keiki Kawaiaea (keiki@hawaii.edu) for signature 2024-01-25 5:43:01 PM GMT
- Email viewed by Keiki Kawaiaea (keiki@hawaii.edu)
 2024-01-25 6:34:20 PM GMT- IP address: 174.202.1.192
- Document e-signed by Keiki Kawaiaea (keiki@hawaii.edu)
 Signature Date: 2024-01-25 6:35:08 PM GMT Time Source: server- IP address: 174.202.1.192
- Document emailed to Bonnie Irwin (bdirwin@hawaii.edu) for signature 2024-01-25 6:35:09 PM GMT
- Email viewed by Bonnie Irwin (bdirwin@hawaii.edu) 2024-01-25 7:15:24 PM GMT- IP address: 66.8.150.105
- Signer Bonnie Irwin (bdirwin@hawaii.edu) entered name at signing as Bonnie D. Irwin 2024-01-25 7:15:52 PM GMT- IP address: 66.8.150.105
- Document e-signed by Bonnie D. Irwin (bdirwin@hawaii.edu)

 Signature Date: 2024-01-25 7:15:54 PM GMT Time Source: server- IP address: 66.8.150.105
- Agreement completed. 2024-01-25 - 7:15:54 PM GMT

Program Code Pharmaceutical Science Innovation Graduate Certificate

Approved | Fall 2024

Proposal Information

Workflow Status

Complete

Form Submission, Proposer

collapse ▼

Submitted for Approval | Proposer

✓ Lara Gomez | 9/29/2023 8:04 PM

Proposer Submission Notification, Proposer

Notification Sent | Proposer

□ Lara Gomez

Curriculum Coordinator, Curriculum Coordinator

Approved | Curriculum Coordinator

✓ Shelby Iwamoto

Curriculum Office and Registrar Reviewed

10/05/2023 5:02 PM

- Cheri Keli'i-Marumoto

Department Chair, Pharmaceutical Sciences

Approved | Department Chair

✓ Dianqing Sun | 10/06/2023 11:27 AM

Proposer Update Notification, Proposer

Notification Sent | Proposer

☑ Lara Gomez

Division Chair, Daniel K. Inouye College of Pharmacy (DKICP)

Skipped | Division Chair

College Curriculum Review Committee Chair, Daniel K. Inouye College of Pharmacy (DKICP)

Approved | College Curriculum Review Committee Chair

✓ Bryce Fukunaga | 10/06/2023 11:36 AM

Senate Chair, Daniel K. Inouye College of Pharmacy (DKICP)

Skipped | Senate Chair

Associate Dean, Daniel K. Inouye College of Pharmacy (DKICP)

Approved | Associate Dean

✓ Lara Gomez | 10/06/2023 12:10 PM

Dean, Daniel K. Inouye College of Pharmacy (DKICP)

Approved | Dean

✓ Miriam Mobley Smith | 10/06/2023 11:30 PM

Proposer Update Notification, Proposer

Notification Sent | Proposer

□ Lara Gomez

Grad Council Chair, Grad Council

Approved | Grad Council Chair

✔ Peter Mills

Graduate Council recommends approval: 11-0-0 11/3/2023

11/08/2023 1:04 PM

Proposer Update Notification, Proposer

Notification Sent | Proposer

□ Lara Gomez

CCRC Chair, CCRC

Approved | CCRC Chair

✓ Kirsten Mollegaard

CCRC Recommends approval, reviewed and voted: 6-0-1 on 11/14/23

11/14/2023 12:11 PM

Proposer Update Notification, Proposer

Notification Sent | Proposer

□ Lara Gomez

VCAA, VCAA

Approved | VCAA

✓ Keiki Kawai`ae`a | 11/19/2023 3:18 PM

Proposer Update Notification, Proposer

Notification Sent | Proposer

□ Lara Gomez

Curriculum Coordinator - Final, Curriculum Coordinator

Approved | Curriculum Coordinator

- Shelby Iwamoto
- ✓ Cheri Keli'i-Marumoto

Printed and Included in Binder

11/21/2023 1:26 PM

Program Title

Pharmaceutical Science Innovation Graduate Certificate

Admin Use Only

Program Code

P) Proposal Details

P.1) This is a proposal for:

New certificate or minor track within an existing BOR approved Baccalaureate or Graduate program

Home Program

Daniel K Inouye College of Pharmacy

P.2) Proposal Summary

Pharmaceutical Sciences is an area that could offer a variety of job opportunities related to the drug discovery, development, and production of novel treatments. Currently, pharmacist professionals are rapidly growing in the pharmaceutical sciences and biopharmaceutical research and development arena. This certificate program is designed to give Pharm.D. students a basic foundation in pharmaceutical sciences research methods, with a focus on Hawaii's unique ecosystem, including locally grown natural products, natural products, and other infectious diseases. Students who complete this program will understand the principle of drug discovery and development techniques and challenges, including pre-clinical research to support FDA-approval drugs. This proposed program is offered by faculty in the Pharmaceutical Sciences (educator experts in the area of drug discovery of natural products, medicinal chemists, pharmaceutics, and pharmacologists).

P.3) Proposal Rationale/Justification

This certificate program aims to train Pharm.D students with the knowledge, experience, skills and ability needed to succeed as a pharmacist expanding their career opportunities working within the pharmaceutical industries, government agencies, and academic research. See attached document.

P.4) Related Course(s)

PHPP 558 Business Administration Overview

PHPP 572 Intro to Post-Graduate Residency Applications

PHPS 545 Intro Pharm Chemistry Research

PHPS 546 Intro Pharm Biology Research

PHPS 554 Herbal Medicine & Hawaiian Med Plants

PHPS 555 Geographic Medicine and Global Health

PHPS 562 Disc & Dev of Blockbuster Drug

PHPS 563 Current Advances in Neuropharmacology

PHPS 567 Pharmacogenetics

PHPS 569 Cancer Prevention

PHPS 570 Drugs from the Ocean and Microorganisms

PHAR 585 Advanced Pharmacy Practice Experiential Elective II

PHAR 586 Advanced Pharmacy Practice Experiential Elective III

PHAR 570 Pharmacy Certificate Presentation - Proposal submitted

PHPS 544 Advanced Laboratory Research - Proposal submitted

PHPS 560 Advances in New Drug Approvals - Proposal submitted

P.5) Course(s) from Other Departments

No

P.6) Proposal Impact(s) - Resources

No

P.7) Department Vote

| | DATE | APPROVE | NOT APPROVE | ABSTAIN |
|-----------|------------|---------|-------------|---------|
| DEPT VOTE | 2023/09/20 | 17 | 0 | 2 |

P.8) Proposal Supporting Documents

P.9) Proposer Notes

Vote is from DKICP faculty senate.

1) Program Information

1.1) Degree Type

Graduate Certificate

1.2) Program Description

Description

Pharmaceutical Sciences is an area that could offer a variety of job opportunities related to the drug discovery, development, and production of novel treatments. Currently, pharmacist professionals are rapidly growing in the pharmaceutical sciences and biopharmaceutical research and development arena. This certificate program is designed to give Pharm.D. students a basic foundation in pharmaceutical sciences research methods, with a focus on Hawaii's unique ecosystem, including locally grown natural products, natural products, and other infectious diseases. Students who complete this program will understand the principle of drug discovery and development techniques and challenges, including pre-clinical research to support FDA- approval drugs. This proposed program is offered by faculty in the Pharmaceutical Sciences (educator experts in drug discovery of natural products, medicinal chemists, pharmaceutics, and pharmacologists).

Mission

This certificate program aims to produce Pharm.D. graduates who are more competitive for career positions in the job market, particularly those involving biomedical sciences, biopharmaceutical, and biotechnology research companies. In addition, organizations like the Bio-Pharm industry, Non-profit research institutions, clinical pharmacies, Medical Science Liaisons, and Regulatory agencies.

Upon completion of this certificate, students will be able to:

- 1. Define the roles and importance of natural products in drug discovery and development;
- 2. Describe the general approaches and challenges related to drug discovery and the development process;
- 3. Identify the application of drug development concepts to Hawaii's natural environment and health issues;
- 4. Describe basic laboratory research methods used in the pharmaceutical sciences;
- 5. Implement laboratory techniques to test research hypotheses;
- 6. Understand and comply with laboratory safety procedures;
- 7. Demonstrate knowledge of the pharmaceutical research industry, including FDA approval of a new drug;
- 8. Apply knowledge of pharmaceutical sciences research in an advanced experiential setting, and improve their clinical skills.
- 9. Apply statistical analysis to research data, interpret results, and draw conclusions
- 10. Participate in a faculty-mentored research project, develop problem-solving skills, and sharpen critical thinking skills.
- 11. Develop oral and written skills and effectively communicate research and clinical data to a broad audience. Conduct one research project and submit the project for presentation at a conference.
- 12. Describe research innovation, technology transfer, and entrepreneurship.

Other objectives pertaining to Biomedical Sciences and Global Health will be based on selected elective courses of focus:

- 1. Synthesize fundamental knowledge in biomedicine and translational sciences.
- 2. Develop critical thinking skills for applying scientific knowledge in evaluating scientific literature.
- 3. Acquire skills for developing hypotheses, analyzing data, and interpreting and communicating results in the biomedical sciences.
- 4. Describe the major causes of morbidity and mortality worldwide, and how the risk for disease varies with regions.
- 5. Evaluate the challenges of health disparities in the community and globally.
- 6. Describe the major public health efforts to reduce disparities in global health.

6

7. Exhibit interprofessional values and communication skills that demonstrate respect for, and awareness of, the unique cultures, values, roles/responsibilities and expertise represented by other professionals and groups in global health.

1.3) Program Catalog Description

Curriculum- Total number of credits: 15

Student must complete the following courses during the P2-P3 Year

| Course ID | Course | Credits | | | | |
|--|---|---------|--|--|--|--|
| PHPS 554 | Herbal Medicine & Hawaiian Med Plants | 1 | | | | |
| PHPS 555 | Geographic Medicine and Global Health | 1 | | | | |
| PHPS 562 | Disc & Dev of Blockbuster Drug | 1 | | | | |
| PHPS 570 | Drugs from the Ocean and Microorganisms | 1 | | | | |
| PHAR 570 | Pharmacy Certificate Presentation | 1 | | | | |
| Student must complete one (1) elective from the following list during the P2-P3 Year | | | | | | |
| PHPS 544 | Advanced Laboratory Research | 2 | | | | |
| PHPS 545 | Intro Pharm Chemistry Research | 2 | | | | |
| PHPS 546 | Intro Pharm Biology Research | 2 | | | | |
| Student must complete two (2) electives from the following list during the P2-P3 Year | | | | | | |
| PHPP 558 | Business Administration Overview | 1 | | | | |
| PHPS 560 | Advances in New Drug Approvals | 1 | | | | |
| PHPS 563 | Current Advances in Neuropharmacology | 1 | | | | |
| PHPS 567 | Pharmacogenetics | 1 | | | | |
| PHPS 569 | Cancer Prevention | 1 | | | | |
| PHPP 572 | Intro to Post-Graduate Residency Applications | 1 | | | | |
| Student must complete one (1) of the following experiential electives during the P4 year | | | | | | |
| PHAR 585 | APPE Elective II | 6 | | | | |
| | | | | | | |

1.4) College

PHAR 586

Daniel K. Inouye College of Pharmacy (DKICP)

APPE Elective III

1.5) Department

Pharmaceutical Sciences

2) Program Requirements

2.1) Minimum Number of Credits

15

2.2) Minimum GPA

2.0

2.3) Minimum Acceptable Grade

2.0

2.4) Program Notes

Criteria

- 1. Must have completed P1 (first year) in the PharmD program
- 2. Must be in good academic standing.
- 3. Must complete PHAR 570.
- 4. Accepted students are responsible for working with the program coordinator to select a research mentor in an area of interest.

Who to contact:

Leng Chee Chang, MS, Ph.D., Professor

Email: lengchee@hawaii.edu

3) Attachments

- Justification_Pharm D Pharm Sci Certificate.doc
- CERT FINAL Pharmaceutical Science_Certificate .docx