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

REQUESTOR CONTACT INFORMATION	
Date: 1/16/2013	Effective term of request (Semester-Year): Fall 2013
Name: Brian Richardson	Title: Dean of Academic Affairs, Division II
Campus: Windward Community College	Office/Department: Academic Affairs
Phone: (808) 235-7416	Email: brian.richardson@hawaii.edu & larak@hawaii.edu (secretary)

1. PROGRAM CODE, MAJOR CODE, CONCENTRATION CODE	N CODE	Banner forms: SMAPRLE, SOACURR, STVMAJR
Institution: Windward CC (WIN)	College: IN	Department: NATS
✓ New program code	lace existing program code:	
Level: Undergraduate Graduate Firs	First-Professional Post-Baccalaureate	Other:
Degree:	Certificate: CC Cer	Certificate: CC Certificate of Completion
If requesting an existing Major code and/or Concent	or Concentration code in Banner:	
Existing Major: Code Description	Existing Concentration:	on: Code Description
If requesting a new 🔳 Major code or 🔲 Concentrati	Concentration code that does not exist in Banner:	
New Code [4 char/space limit]: SAG	Description [30 char/space limit]: Sustainable Agriculture	inable Agriculture
If a similar major/concentration code exists in Banner, please list the code:	r, please list the code:	
Is this major/concentration code being used the same way at other UH campuses?	e way at other UH campuses?	
Is 50% or greater of the classes in this program offered at a location other than the Home Campus? (Please consult your Financial Aid Officer on Program	ed at a location other than the Home Can (Please consult your Fin	than the Home Campus?
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?	lect as their planned course of study on tl	on the online application?

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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 Wes No Ending Term (Semester-Year) Ending Term (Semester-Year) Ending Term (Semester-Year)
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: Associate of Arts

3. NEW CAMPUS, COLLEGE, DIVISION, OR DEPARTMENT CODE	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]:

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

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)	able) 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):	you are requesting the code(s):
The certificate of completion in Sustainable Agriculture is a technical certificate that will skills in areas such as aquaponics, farm energy systems, and plant propagation. We will also be submitting the certificate to the ACCJC as a substantial change request.	The certificate of completion in Sustainable Agriculture is a technical certificate that will train students to become small-scale farmers by acquiring skills in areas such as aquaponics, farm energy systems, and plant propagation. We will also be submitting the certificate to the ACCJC as a substantial change request.
SUPPORTING DOCUMENTATION	
Please see the Code Request Guide for the required	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	orting documents provided to the BOR
☐ Memo from UH President	
☐ Memo from Chancellor	
Curriculum (required for requests for new programs/majors/minors/certificates)	ograms/majors/minors/certificates)
Gainful Employment Program notification to	notification to the US Department of Education
Other:	

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Rev. 07-2011

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

CAMPUS VERIFICATION	
Requestor Signature $\frac{1}{2}$ Date $\frac{2}{1}$	
Registrar (If different from Requestor) Geri Imai	8-6-13
Print name Signature may be attached	Date
onsultation required for a	
Steven Chigawa	2/4/13
Print name Signature	l Date
Email/memo in lieu of Financial Aid Officer's signature may be attached	
For Community Colleges, verification of consultation with OVPCC Academic Affairs:	
Print name Signature Email/memo in lieu of signature may be attached	Date
בווימון/וויבווס ווו וובח סו אולויומרתוב ווימל חב מרמכיובת	

Send completed form and supporting documentation to:

Email: iro-mail@lists.hawaii.edu Institutional Research and Analysis Office (IRAO) 1633 Bachman Place

Fax: 808-956-9870

Sinclair Annex 2, Room 4 Honolulu, HI 96822

Phone: 808-956-7532

After <u>all</u> 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]:



Date of Proposal: November 1, 2012

Date of proposed implementation: Fall, 2013

Overview

Sustainable agriculture integrates long-term environmental stability with economic profitability in way that focuses on stewardship of both human and physical resources. In contrast to the ways of farming that have become typical in the last century, sustainable agriculture focuses on reducing energy and resource demands, removing harmful chemicals and by-products of farming, and using alternative processes, such as aquaponics (aquaponics will be used to demonstrate one important method of sustainable agriculture), to create a viable farm.

While models of sustainable farming have existed for centuries, new technologies and the need to conform to modern forms of economic production and regulation, mean that the small-scale farmer seeking to practice sustainable agriculture to acquire a set of skills that include an understanding of aquaponics, of energy systems on farms, of plant science, and of how to plan and operate a business.

The Certificate of Completion in Sustainable Agriculture is a 17-20 credit certificate designed for students who want to engage is small-scale farming in Hawaii.

The certificate will initially target recent high school graduates who reside on the rural Windward coast of Oahu. Many of the students who attend Windward CC originate from families who have strong backgrounds in agriculture, and there will likely be a natural draw from these students to this type of program. Likewise, while approximately 30% of public high school graduates apply for college the remaining student populations are undecided on their career paths and directly enter the work force with little or no training. This limits their ability to secure higher paying jobs or for obtaining the necessary education to advance in their current line of work. People in the workforce who are seeking a new career track are likely candidates for the proposed program by offering a segue way for students to pursue a four year degree at UH Manoa and acquire more advanced training in tropical agriculture.

Program Learning Outcomes

The successful student in the program will be able to:

- Evaluate sustainable farming systems and business plan
- Determine the sustainable farming system suited for a specific location in Hawaii
- Recommend cultural practices, solve problems and cultivate horticultural crops in a sustainable manner based on sound biological and technological principles

Required Courses (17 to 20 credits total)

AG 120 Plant Science 3 credits

The study of plant science, morphology, anatomy, physiology classification, growth, growth regulators, and propagation. Students are required to write a 10 to 15 page research report.

- Describe and explain general plant structure and function in relation to plant growth and development.
- Demonstrate knowledge of horticultural principles in the cultivation of plants.
- Examine commercial agricultural enterprises for to become familiar with employment opportunities and the impact of horticulture on our lives.
- Research and report on a horticultural plant.

Alignment of AG 120 to Program Learning Outcomes	Evaluate sustainable farming systems and business plan	Determine the sustainable farming system suited for a specific location in Hawaii	Recommend cultural practices, solve problems and cultivate horticultural crops in a sustainable manner based on sound biological and technological principles
Describe and explain general plant structure and function in relation to plant growth and development			×
Demonstrate knowledge of horticultural principles in the cultivation of plants		×	
Examine commercial agricultural enterprises for to become familiar with employment opportunities and the impact of horticulture on our lives	х		
Research and report on a horticultural plant			х

AG 170 Introduction to Aquaponics 4 credits

The course covers aquaculture, hydroponics, aquaponics, sustainable aquatic feed production, renewable local seeding technologies and micronutrient supplementation, fish and plant physiology, renewable energy systems, water catchment and conservation techniques, and best aquaponic food safety practices. The basic physical and biological principles governing sustainable farm and agribusiness operations are emphasized

- Design and construct a basic aquaponic system that uses all three growout technologies (nutrient film technique, ebb and flow, and floating raft) either alone or in combination.
- Apply best aquaculture practices for culturing fishes in an aquaponic setting.
- Identify the water quality parameters and manage them in order to maximize fish, plant and microbial outputs in an aquaponic setting.
- Use best agricultural practices for plant crop production in an aquaponic setting. Prepare seedlings for planting, harvest produce, stagger production of both plant and fish, and apply food safety procedures.

Alignment of AG 170 to	Evaluate	Determine the	Recommend cultural
Program Learning	sustainable	sustainable	practices, solve problems
Outcomes	farming	farming system	and cultivate horticultural
	systems and	suited for a	crops in a sustainable
	business plan	specific location	manner based on sound
		in Hawaii	biological and
			technological principles
Design and construct a basic			
aquaponic system that uses			
all three growout			
technologies (nutrient film		X	
technique, ebb and flow, and	ĺ	i	
floating raft) either alone or in			
combination.			
Apply best aquaculture		-	
practices for culturing fishes			X
in an aquaponic setting			
Identify the water quality parameters and manage	-		
them in order to maximize			
fish, plant and microbial			l i
outputs in an aquaponic			
setting			
Use best agricultural			
practices for plant crop			
production in an aquaponic		}	
setting. Prepare seedlings for			X
planting, harvest produce,			^
stagger production of both			
plant and fish, and apply food			
safety procedures.		l	

AG 171 Farm Renewable Energy Systems 3 credits (to be approved)

This course explores the various renewable energy systems potentially employable on small farms. Topics such as solar, solar thermal, wind, microhydraulic, biomass, and hybrid technologies are covered in the course

- Evaluate solar thermal applications, heating water, drying/cooking food products, running air conditioning systems and distilling water;
- Evaluate solar thermal/photovoltaic systems
- Evaluate wind and Micro Hydroelectric systems
- Evaluate biomass systems, composting, agriculture wastes, ocean plants, feed stock, landfill implications, chemical processes and anaerobic digestion systems
- Evaluate hybrid systems, battery technology, low voltage control systems, inverters and generators, and alternative transportation fuels

Allgnment of AG 171 to Program Learning Outcomes	Evaluate sustainable farming systems and business plan	Determine the sustainable farming system suited for a specific location in Hawali	Recommend cultural practices, solve problems and cultivate horticultural crops in a sustainable manner based on sound biological and technological principles
Evaluate solar thermal applications, heating water, drying/cooking food products, running air conditioning systems and distilling water		×	
Evaluate solar thermal/photovoltaic systems		Х	
Evaluate wind and Micro Hydroelectric systems		Х	
Evaluate biomass systems, composting, agriculture wastes, ocean plants, feed stock, landfill implications, chemical processes and anaerobic digestion systems		×	
Evaluate hybrid systems, battery technology, low voltage control systems, inverters and generators, and alternative transportation fuels,		×	

AG 192 Special Topics 1-4 credits

A study of vegetable production in Hawaii. Students are expected to grow and harvest a vegetable crop.

- Identify the important concepts and facts for vegetable/fruit production in Hawaii
- Gain a higher appreciation for the human endeavor of vegetable/fruit production.
- Gain a higher awareness of the potential career paths in the agriculture industry
- Develop a comprehensive business plan for a vegetable/fruit business enterprise.

Alignment of AG 192 to Program Learning Outcomes	Evaluate sustainable farming systems and business plan	Determine the sustainable farming system suited for a specific location in Hawaii	Recommend cultural practices, solve problems and cultivate horticultural crops in a sustainable manner based on sound biological and technological principles
Identify the important concepts and facts for vegetable/fruit production in Hawaii	×		
Gain a higher appreciation for the human endeavor of vegetable/fruit production			
Gain a higher awareness of the potential career paths in the agriculture industry			
Develop a comprehensive business plan for a vegetable/fruit business enterprise	х		

BUS 122B: Introduction to Entrepreneurship; Sustainable Agriculture 3 credits

This course is a specialized section of Introduction to Entrepreneurship that focuses on sustainable agriculture. The course will cover the basic economic and business principles regarding small-scale business enterprises connected to agriculture, with a particular focus on sustainable agriculture in Hawaii. With a focus on the creation of a business plan, topics include researching and

evaluating resources, planning, marketing, cultivating money resources, and understanding key concepts in law, budgeting, financial statements, and business documentation.

- Develop a comprehensive business plan for a future agriculture business
- Apply fundamental economic, financial, and organizational principles to the operation of a sustainable agriculture business.
- Work collaboratively in a group setting to cultivate entrepreneurship and develop solutions to economic issues.
- Apply general entrepreneurial concepts to sustainable agriculture practices in Hawaii.

Alignment of BUS 122B to Program Learning Outcomes	Evaluate sustainable farming systems and business plan	Determine the sustainable farming system suited for a specific location in Hawaii	Recommend cultural practices, solve problems and cultivate horticultural crops in a sustainable manner based on sound biological and technological principles
Develop a comprehensive business plan for a future agriculture business	х		
Apply fundamental economic, financial, and organizational principles to the operation of a sustainable agriculture business.	x		
Work collaboratively in a group setting to cultivate entrepreneurship and develop solutions to economic issues			×
Apply general entrepreneurial concepts to sustainable agriculture practices in Hawaii	x		

IS 201: The Ahupua'a 3 credits

Study of the traditional Hawaiian approaches to natural resource development, utilization, exploitation, and management. The ahupua'a, as the traditional Hawaiian unit of land and sea subdivision, beginning in the upland forests, stretching across lower elevations, past the shoreline to the edge of the reef, will be evaluated as a microcosm of an integrated ecosystem and as a model for natural resource management and sustainability.

• Describe how the Hawaii's unique geological formation affects its sustainable natural resources.

- Describe how the ancient migration begins to affect the management of its natural resources and the socio-political fabric of the new land.
- Describe the agri-spiritual relationship between plant and mahi'ai; and the fish and the lawai'a.
- Discuss the ancient and present management value of water.
- Describe and assist in the reconstruction of lo'i kalo and loko i'a.
- Describe and discuss the current resources management practices, which augment or negate ancient practices.
- Research and replicate an artifact of his or her choice.

Alignment of IS 201 to Program Learning Outcomes	Evaluate sustainable farming systems and business plan	Determine the sustainable farming system suited for a specific location in Hawali	Recommend cultural practices, solve problems and cultivate horticultural crops in a sustainable manner based on sound biological and technological principles
Describe how the Hawaii's unique geological formation affects its sustainable natural resources.		x	
Describe how the ancient migration begins to affect the management of its natural resources and the socio-political fabric of the new land			
Describe the agri-spiritual relationship between plant and mahi'ai; and the fish and the lawai'a.			
Discuss the ancient and present management value of water		x	
Describe and assist in the reconstruction of lo'i kalo and loko i'a			х
Describe and discuss the current resources management practices, which augment or negate ancient practices			
Research and replicate an artifact of his or her choice			

Windward Organizations

Kakoʻo Oʻiwi - non-profit workforce development and wetland restoration

Kamehameha Schools - Punaluu

Associations

Hawaii Farm Bureau

Hawaii Aquaculture and Aquaponics Association

Hawaii Farmer's Union

Landholders

Kamehameha Schools

Campbell Estates

Castle Foundation

College Resources

The primary facilities used by the programs will be in already-existing classrooms and the college's Shade House..

The instructors would be a combination of current faculty and outside experts in the discipline. No new positions are required.

Promoting the Certificate

The certificate will appeal to non-traditional students who are either already farming or who are interested in becoming farmers. A recent Agcurious seminar was held with 92 participants. A 5 session Agxposure series has 32 applicants. The certificate and individual would be promoted through already existing organizations such as the CTAHR and local farming associations.

The program would also be promoted at relevant events such as aquaponics workshops and the State farm fair.

Program Assessment

The success of the certificate program will be measured in three key ways: first, the number of students obtaining the certificate; second, the number students becoming farmers; and third, the number of non-certificate seeking students who take the specialized courses, indicating an in increase in skills in the industry even though a certificate is not obtained.

Program and Certificate Proposal Signature Page Windward Community College

1.	Name of Proposal: Certificate of Completion in Sustainal	ole Agriculture
2.	Proposer Simpulo	12/3/12 Pate
3.	Department Review	Date
	Scalmenares Department Chairperson	12/3/12 Date
4.	Curriculum Committee Review	
	Curriculum Committée Chairperson	12/4/12 Date
5.	Faculty Senate Review	
	Faculty Senate Chairperson	12/4/12 Date
6.	Division	
	Dean of Instruction	$\frac{12/7/12}{Date}$
7.	Vice Chancellor for Instruction	
	Vice Chancellor for Instruction	12/10/12 Date
8.	Chancellor	1/4/13 Date

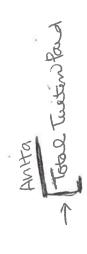
* . . .

Banner Term Codes as of August 28, 2003 (corrected)

	1						 ;
	Code	yyyy40		yyyy42	уууу43	yyyy44	yyyy45
Summer	Description	Summer		Summer I	Summer Extension	Summer II	Summer Accelerated
	Code	yyyy30	yyyy31		yyyy33		yyyy35
Spring	Description	Spring	Spring Apprenticeship		Spring Extension		Spring Accelerated
	Code	yyyy20			yyyy23		yyyy25
Winter	Description	Winter			Winter Extension		Winter Accelerated
Fall	Code	yyyy10	yyyy11		yyyy13		yyyy15
	Description	Fall	Fall Apprenticeship		Fall Extension		Fall Accelerated

Notes:

- 1. Apprenticeship applies to Honolulu Community College only. First used in Fall 2003; prior to Fall 2003, regular term codes, ending with "0", were used.
- 2. Extension refers to UH Manoa Outreach program.
- 3. Accelerated refers to Honolulu Community College Continuing Education (SOCAD) program.
- 4. "yyyy" refers to four-digit year. Note that for Fall, the actual year that the code refers to is yyyy-1. For example, 200410 refers to Fall 2003.



Pearl Iboshi

(808) 235-7416

Brian Richardson [richards@hawaii.edu] From: Monday, February 25, 2013 6:17 PM Sent: Pearl Iboshi To: Brian Richardson; Lara Kong; David Ringuette; Richard Fulton Cc: Re: program code for Sustainable agriculture Subject: Aloha Pearl, Yes, that seems acceptable. I think our main goal is to have a code of some kind. Thanks Brian On Feb 25, 2013, at 5:03 PM, Pearl Iboshi wrote: > I have reviewed your request, and would recommend that you use AGSU instead, keeping the AG first so it is more easily found. > We are trying to be more consistent in assigning codes. Please let me know if this is acceptable to you. > > Pearl Imada Iboshi, Ph.D. > Director > Institutional Research and Analysis > University of Hawaii System > 1633 Bachman Place, Sinclair Annex 2, Room 4 Honolulu, HI 96822 > > Phone: (808)956-5442 > Email: iboshi@hawaii.edu > Website: www.hawaii.edu/irao Dean of Academic Affairs, Division II Windward Community College

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