

Edits confirmed with
 Michael Reese and
 Leeward campus
 6/2/2014.

REQUESTOR CONTACT INFORMATION	
Date: April 21, 2014	Effective term of request (Semester-Year): Fall 2014
Name: Michael Reese	Title: Assistant Professor
Campus: Leeward CC	Office/Department: Math & Sciences
Phone:	Email: mreese@hawaii.edu

1. PROGRAM CODE, MAJOR CODE, CONCENTRATION CODE		Banner forms: SMAPRLE, SOACURR, STVMAJR	
Institution: Leeward CC (LEE)	College: IN Instructional	Department: Math & Sciences	MS
<input checked="" type="checkbox"/> New program code <input type="checkbox"/> Change/replace existing program code:			
Level: <input checked="" type="checkbox"/> Undergraduate <input type="checkbox"/> Graduate <input type="checkbox"/> First-Professional <input type="checkbox"/> Post-Baccalaureate <input type="checkbox"/> Other:			
Degree: ASNS w/ Concentration in Pre-Computer Science AS		Certificate:	
If requesting an existing Major code and/or Concentration code in Banner:			
Existing Major: NSCI	Natural Science	Existing Concentration: CSCI	Computer Science
<small>Code</small>	<small>Description</small>	<small>Code</small>	<small>Description</small>
If requesting a new <input type="checkbox"/> Major code or <input checked="" type="checkbox"/> Concentration code that does not exist in Banner:			
New Code [4 char/space limit]:		Description [30 char/space limit]:	
If a similar major/concentration code exists in Banner, please list the code: ASNS has existing Concentrations in LS, PS, and Pre-Eng.			
Is this major/concentration code being used the same way at other UH campuses? KCC ?			
Is 50% or greater of the classes in this program offered at a location other than the Home Campus? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
<small>(Please consult your Financial Aid Officer on Program Participation Agreement impact)</small>			
Is this program/major/certificate financial aid eligible? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <small>(Financial Aid Officer consultation required for all new program codes)</small>			
Should this program be available for applicants to select as their planned course of study on the online application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<small>(If yes, students may select the code as their <u>only</u> program of study.)</small>			

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

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	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Recruitment	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Admissions	<input type="checkbox"/>	<input type="checkbox"/>	_____
	General Student	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Academic History	<input type="checkbox"/>	<input type="checkbox"/>	_____

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, STV_COLL, 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)		Banner form: STVMAJR
Minor Code [4 char/space limit]:	Minor Description [30 char/space limit]:	

<p>Please briefly describe your request and explain why you are requesting the code(s):</p> <p>Addition of Pre-Computer Science Concentration to the ASNS degree. Already existing are Life Science, Physical Science and Pre-Engineering Concentrations.</p>

SUPPORTING DOCUMENTATION	
<p>Please see the Code Request Guide for the required supporting documents to be submitted. Documents submitted with this form:</p>	
<input type="checkbox"/>	Board of Regents meeting minutes and supporting documents provided to the BOR
<input type="checkbox"/>	Memo from UH President
<input checked="" type="checkbox"/>	Memo from Chancellor
<input type="checkbox"/>	Curriculum (required for requests for new programs/majors/minors/certificates)
<input type="checkbox"/>	Gainful Employment Program notification to the US Department of Education
<input type="checkbox"/>	Other: _____

UNIVERSITY OF HAWAII
CODE REQUEST FORM FOR ACADEMIC PROGRAM CODES

CAMPUS VERIFICATION		
Requestor Signature <u><i>Mark Reu</i></u>	Date <u>May 7, 2014</u>	
Registrar (If different from Requestor)		
<u><i>Grant Helgeson</i></u> Print name	<u><i>[Signature]</i></u> Signature	<u>5/7/14</u> 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)		
<u><i>Aileen Lum-Akana</i></u> Print name	<u><i>Aileen Lum-Akana</i></u> Signature	<u>05/07/14</u> Date
Email/memo in lieu of Financial Aid Officer's signature may be attached		
For Community Colleges, verification of consultation with OVPCC Academic Affairs:		
<u><i>Suzette Robinson</i></u> Print name	<u><i>[Signature]</i></u> Signature	<u>5/8/14</u> 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 Email: iro-mail@lists.hawaii.edu
 Sinclair Annex 2, Room 4 Fax: 808-956-9870
 Honolulu, HI 96822 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: 5/22/2014
Program code [12]: AS-NSCI-CSCI	Program Description [30]: AS-Natural Science-ComputerSci
CIP code [6]:	CIP description [30]:




March 25, 2014

MEMORANDUM

TO: Joanne Itano
Office of the Executive Vice President for Academic Affairs/Provost

VIA: Michael Pecsok 
Vice Chancellor for Academic Affairs

FROM: Manuel J. Cabral 
Chancellor

SUBJECT: Curriculum Approval

I have approved the following program modifications on 3/16/14. These modifications are effective Fall 2014. The approvals can be found at: <http://curriculumcentral.its.hawaii.edu:8080/central/core.cas.jsp>

Modification

- Associate in Arts (AA) – Hawaiian Studies
- Associate in Arts (AA) – Liberal Arts
- Associate in Arts (AA) – Teaching
- Associate in Science (AS) – Accounting
- Associate in Science (AS) – Business Technology
- Associate in Science (AS) – Digital Media Production
- Associate in Science (AS) – Natural Sciences
- Academic Subject Certificate (ASC) – Community Food Security
- Academic Subject Certificate (ASC) – Digital Art: Photographic Emphasis
- Certificate of Achievement (CA) – Accounting
- Certificate of Achievement (CA) – Business Technology
- Certificate of Competence (CO) – Business Technology
- Certificate of Competence (CO) – Dining Room Supervision
- Certificate of Competence (CO) – Human Services/Substance Abuse Counseling
- Certificate of Competence (CO) – Preparation Cook
- Certificate of Competence (CO) – Virtual Office Assistant

Attachments

- c Division Chairs
 - James Goodman
 - Ron Umehira
 - Della Anderson
 - Alicia Brown
 - Candy Hochstein
 - Blake Hunrick
 - Michael Lane
 - Pearl Imada-Iboshi

Degree: Associate in Arts

Title: Hawaiian Studies

Description: The Associate in Arts in Hawaiian Studies (AAHS) is a 60-credit degree program intended to either provide the first two years of a baccalaureate program in Hawaiian Studies or prepare the student for study in other, broader fields of science, humanities, arts, and social sciences.

Effective Date: Fall 2014

Program Modifications:

Added a new course, HWST 161: Hula Nei II, to the list of electives under the themes "Hana Noeau," "Mooolelo," and "Olelo." Corrected the alpha for Hawaiian language courses from HAWN to HAW.

Degree: Associate in Arts

Title: Liberal Arts

Description: The two-year liberal arts degree, consisting of at least 60 semester credits, entirely at the baccalaureate level (100 level and above), which provides students with skills and competencies essential for successful completion of a baccalaureate degree.

Effective Date: Fall 2014

Program Modifications:

Updated outline's effective date.

Updated UHCC's Annual Report of Instructional Program Data.

Added (formerly ...) to all courses with alpha and/or number changes.

Added these Foundation courses, which are in the process of being approved for academic year 2013-14. If approved as Foundation courses, these courses will be removed from the Diversification list.

ENG 253 World Literature to 1600 (FGA) (submitting request: 2-14-2014)

GEOG 102 World Regional Geography (FGB) (submitting request: 2-14-2014)

Added these Diversification courses, which were approved or are in the process of being approved for academic year 2013-14.

DMED 150 Film Analysis & Storytelling (DA)

THEA 220 Beginning Voice and Movement (DA) (approved by the Faculty Senate on January 22, 2014)

THEA 240 Basic Stagecraft (DA)

These DRAM courses were removed, because they became THEA in fall 2013.

DRAM 101 Intro to Drama & Theatre

DRAM 221 Beg. Acting I

DRAM 222 Beg. Acting II

DRAM 240 Basic Stagecraft

DRAM 260 Dramatic Production

HUM 261 removed, because it became HWST 261 in fall 2011.

HWST 261 added.

The following courses were removed, because they have been deleted.

GEOG 122 Geography of Hawai'i (deleted fall 2014)

HUM 262 Pacific Literature (deleted fall 2014)

MUS 180 Aural Perception and Notation (deleted fall 2014)

PSY 180 Psychology of Work (deleted fall 2014)

SCI 107 The Molecular Basis of Life (deleted fall 2012)

SCI 225 Earth & Universe, Science (deleted fall 2012)

SCI 225L Earth & Universe Lab (deleted fall 2012)

The following courses were removed, because they are not diversification courses. The division does not offer these classes anymore and/or the division requested that the diversification designation be removed.

ART 105B Intro to Ceramics: Handbuilding
ART 105C Intro to Ceramics: Wheel Throwing
ART 114 Introduction Color
ART 171 Intro to Western Art I
ART 172 Intro to Western Art II
DNCE 131 Modern Dance I
DNCE 180 Dance Production
EALL 271 Japanese Lit in Translation— Traditional
EALL 272 Japanese Lit in Translation—Modern
EE 211 Basic Circuit Analysis
EE 213 Basic Lab Measurements and Techniques
ENG 257H Themes in Lit.: Man and Myth
IS 221 Problems of War and Peace
MUS 121F Slack Key Guitar
PHIL 200 History of Philosophy I
PHIL 201 History of Philosophy II
PHIL 211 History of Western Philosophy I
PHIL 212 History of Western Philosophy II
PHIL 213 History of Western Philosophy III
REL 203 Understanding Chinese Religions

The following courses were added, because they are diversification courses.

BIOL 172L Introduction to Biology Lab II
BIOL 265 Ecology and Evolutionary Biology
BIOL 265L Ecology and Evolutionary Bio Lab
HWST 160 Hula (was DNCE 160)
HWST 270 Hawaiian Mythology
ICS 170 Ethics for the Digital World (approved in spring 2013)
MUS 203G Guitar Ensemble
MUS 232G Applied Music: Classical Guitar
PBT 141 Integrated Pest Management
THEA 101 Intro to Drama & Theatre (formerly DRAM 101)
THEA 170 Introduction to Children's Theatre (formerly DRAM 170)
THEA 221 Beginning Acting I (formerly DRAM 221)
THEA 222 Beginning Acting II (formerly DRAM 222)
THEA 260 Dramatic Production (formerly DRAM 260)
THEA 262 Local Style Theatre (formerly DRAM 262)
THEA 280 Beginning Playwriting (formerly DRAM 280)
WS 202 Psychology of Gender (cross-listed with PSY 202)

Degree: Associate in Arts

Title: Teaching

Description: The Associate in Arts in Teaching (AAT) is a 62 credit degree program intended to either provide the first two years of a baccalaureate program in elementary or secondary education (transfer degree) or prepare the student for employment as an educational assistant (terminal degree). The AAT program is firmly rooted in the academic study skills and content courses of a strong general education program combined with a rigorous core of pre-professional education courses. The program also includes field experience embedded within education courses as well as a culminating Field Experience course with experienced professional teacher-mentors, and preparation for the PRAXIS I exam, a test required nationally for admission into many teacher preparation programs. The program is designed to be flexible in order to best support transfer to any of our articulated partners and to allow focus on a range of teaching areas (e.g. elementary, secondary, and special education).

Effective Date: Fall 2014

Program Modifications:

Program Student Learning Outcomes

At the end of the program, the successful candidate will be able to:

Collaborate:

1. analyze, collaborate and value learning communities to ensure growth for all learners and evaluate his/her own effectiveness

Oriented to Students:

2. describe, analyze, implement, assess and value developmentally appropriate instructional and assessment strategies, and positive learning environments to ensure growth for all learners and evaluate his/her own effectiveness.

Relevant:

3. analyze, design, implement, assess, and value standards-based lesson plans that are contextually, culturally, and technologically relevant to reach all learners and evaluate his/her own effectiveness.

Effective:

4. analyze, plan, develop, demonstrate and value professional and ethical teaching practices to ensure growth for all learners and evaluate his/her own effectiveness.

Degree: Associate in Science

Title: Accounting

Description: The Associate in Science degree is designed to prepare the student for entry-level accounting positions in accounts receivable, accounts payable, payroll, inventory, bookkeeping, and other related fields.

Effective Date: Fall 2014

Program Modifications:

Added PLO #10 "Utilize resources needed to find a job" and PLO #11 "Perform duties at a worksite according to industry standards."

The overall objective of the Accounting Program is to prepare students for immediate and future employment and career advancement. A secondary objective is to prepare students for continuing education.

Upon completion, students should be able to:

1. Perform basic accounting tasks and maintain accurate accounting systems including the preparation of financial statements.
2. Use appropriate software to complete accounting/bookkeeping tasks.
3. Access, analyze, and interpret information to make judgments and to solve business problems.
4. Practice within the legal and ethical parameters of the profession.
5. Interact with customers, vendors, and co-workers in ways that effectively support the work to be accomplished and customer satisfaction.
6. Organize, prioritize, and perform work tasks to meet deadlines and schedules.
7. Compose clear and accurate business documents.
8. Demonstrate knowledge of wage/hour, payroll taxes and Hawaii General Excise Tax laws.
9. Demonstrate knowledge of income tax laws and prepare income tax returns.
10. Utilize resources needed to find a job.
11. Perform duties at a worksite according to industry standards.

Added MATH 103 as an option to BUSN 188. Also added statement about transferability of MATH 103 to UH West Oahu.

The program consists of general education courses including oral and written communications, general business courses to provide a strong business foundation, and specific accounting courses. Admission and counseling is consistent with other programs at the college. (No special admission requirements.)

First Semester Requirements	Credits
ACC 124* College Accounting I or ACC 201* Financial Accounting	3
BUSN 188 Business Calculations or MATH 103*** College Algebra	3
MGT 121 Customer Service	3
SP 151 Personal and Public Speech	3
BUS 101 Business Computer Systems	3
Credits	15
Second Semester Requirements	Credits
ACC 125* College Accounting II or ACC 202* Managerial Accounting	3
ENG 100 Composition I or equivalent	3
ACC 150 Using Quickbooks in Accounting	3
BUS 120 Principles of Business	3
ACC 132 Payroll & Hawai'i GE Taxes	3
BUSN 166 Professional Employment Preparation (AS students may take this in their fourth semester)	1
Credits	16
Third Semester Credits	Credits
Business Elective for those who completed ACC 201 or ACC 202. (For students who completed ACC 124 and ACC 125, see recommended list in fourth semester.)	3
ACC 134 Income Tax Preparation	3
ECON 131 Principles of Macroeconomics or ECON 130 Principles of Microeconomics or ECON 120 Introduction to Economics**	3
ENG 209 Business Writing	3
Natural Science (DB or DP)	3
Credits	15
Fourth Semester Requirements	Credits
ACC 255 Using Spreadsheets in Accounting	3
LAW 200 Legal Environment of Business	3
BUSN 193V Cooperative Education	1
Arts & Humanities Elective (DA or DH)	3
Business Elective (Highly recommended: ACC 137 Business Income Taxes (3))	4
Credits	14
Total Degree Credits	60

*Combination of Introductory Accounting Courses
For Certificate of Achievement

ACC 124 and ACC 125
ACC 201 and ACC 202

For Associate in Science

ACC 201 and ACC 202
ACC 124, ACC 125 and ACC 202

The sequence of ACC 124, 125 and 202 is equivalent to the sequence of ACC 201 and 202 and vice versa. Therefore, credit will not be given for both sequences. A student who has completed ACC 124 or ACC 125 may not use ACC 201 as an elective for any AS or AAS degree. Similarly, a student who has completed ACC 201 may not use ACC 124 and ACC 125 as an elective for any AA degree.

** Not recommended for transfer to a four year program.

***MATH 103 is articulated with UH West Oahu as a General Education Foundations Symbolic Reasoning (FS) course and will satisfy the lower division math requirement for the Bachelor of Arts in Business Administration, Accounting degree.

Degree: Associate in Science

Title: Business Technology

Description: The Business Technology Program prepares students for employment (and to upgrade/retrain business professionals) in administrative support positions in office settings in both private and public business and related industries. The curriculum provides for career mobility.

Effective Date: Fall 2014

Program Modifications:

This is an approved Program of Study. Modifications are being made to add flexibility to the required courses in order to better prepare students for the workforce.

In the first semester, Principles of Business, BUS 120, is being moved from a required course to an elective course in order to allow students to diversify their skills in a way that best suits their professional goals. Customer Service (3), MGT 121, has been moved to the first semester. Business Calculations (3), BUSN 188, and Professional Employment Preparation (1), BUSN 166, have been moved to the second semester.

In the third/fourth semesters, the specialization of 12 credits has been reduced to 9 credits in order to allow for an elective (3 credits) of any 200-level business course with a course alpha of BUSN, BUS, ACC, MGT, MKT, BLAW, or FIN.

In order to obtain a Business Technology certificate or degree, students must pass all required business (BUS), business technology (BUSN), management (MGT), accounting (ACC), and law (BLAW) courses with a grade of C or better.

Degree: Associate in Science

Title: Digital Media Production

Description: The Associate in Sciences in Digital Media Production provides creative individuals with the art and design training needed to explore and express ideas using leading-edge technology and skill-sets. Students receive integrated digital media training in one of five specializations: Character Animation, Creative Media, Digital Video for the Web, Internet Publishing and Video Games. Students become life-long learners, developing the skills required for a vast array of digital media careers, including web design and development, multimedia-production, digital video production, corporate communications, two-dimensional and three-dimensional animation, video games and interactive media.

Effective Date: Fall 2014

Program Modifications:

Core Requirements

Reduce the number of credits from 24 to 15.

Remove 5 courses totaling 15 credits:

1. ART 107D Introduction to Digital Photography
2. DMED 121 NetPrep Web Site Design
3. DMED 113 Introduction to Layout Design
4. DMED 140 Principles of Animation
5. DMED 293 Practicum in Digital Media

Add the following course:

1. ART 221 Design for Print and Web
2. ART 112 Digital Art

General Education

Increase the number of credits from 15 to 21

Delete the following 2 courses:

1. ICS 100 Computing Literacy or ICS 111 Introduction to Computer Science
2. ART 112 Digital Art

Add the following 4 courses:

1. One course from the Global Multicultural Perspective list (FG)
2. ICS 170 Ethics for the Digital World (DH)
3. One course from the Diversification Social Sciences list (DS)
4. One course from the Diversification Physical list (DP)

Specializations

Delete the following 2 specializations:

1. Digital Photography
2. Motion Graphics

Add the following 3 specializations:

1. Creative Media
2. Digital Video for the Web
3. Video Games

New Specialization in Creative Media 24 credits

1. ART 107D Introduction to Digital Photography
2. ART 115D Digital Design
3. ART 156 Digital Painting
4. ART 166 Digital Printmaking
5. ART 202 Digital Imaging
6. ART 207D Intermediate Digital Photography
7. ART 229 Interface Design I
8. Elective One course from any other DMED specializations

New Digital Video for the Web 24 credits

1. DMED 130 Digital Storyboard
2. DMED 132 Principles of Video Editing
3. DMED 133 Sound Design For Digital Media
4. ART 229 Interface Design I
5. DMED 235 Digital Video for the Web
6. DMED 236 Advanced Digital Video for the Web
7. DMED 240 Animation and Special Effects
8. One course from any other DMED specializations

New Specialization in Video Games 24 credits

1. MUS 107 Music in World Cultures
2. ICS 110 Introduction to Programming
3. DMED 122 NetPrep Flash Animation
4. DMED 141 Introduction to 3-D Animation
5. ICS 136 Introduction to Mobile Device Application
6. THEA 221 Beginning Acting I
7. DMED 242 Character Animation
8. One course from any other DMED specializations

Modify the following 2 Specialization:

1. Internet Publishing
2. Character Animation

Character Animation modification:

1. Deleted:
ART 198D Cartoon Drawing & 2D Animation Techniques
2. Added:
DMED 140 Principle of Animation

Internet Publishing modification:

1. Deleted:
DMED 133 Sound Design for Digital Media
DMED 220 Intermediate Web Site Design
2. Added:
ART 229 Interface Design I
ART 249 Interface Design II
Elective

The following table visually describes the changes

New core requirements 15 credits			Old 24 credits	
ART 112	3	Digital Art		
ART 113D	3	Introduction to Computer Drawing	ART 113D	3
DMED 131	3	Digital Video	DMED 131	3
DMED 200	3	Electronic Portfolio	DMED 200	3
ART 221	3	Design for Print and Web		
		Introduction to Layout Design	DMED 113	3
		NetPrep Web Site Design	DMED 121	3
		Introduction to Digital Photography	ART 107D	3
		Principles of Animation	DMED 140	3
		Practicum in Digital Media	DMED 293	3
New general education 21 credits			Old 15 credits	
ENG 100 or higher	3	Composition I	ENG 100 or higher	3
MATH 100 or higher or PHIL 110	3	Survey of Mathematics	MATH 100 or higher or PHIL 110	3
		Introduction to Logic		
One course	3	Global		

		Multicultural Perspective (FG)		
ICS 170	3	Ethics for the Digital World (DH)		
One course	3	Diversification Social Sciences (DS)		
One course	3	Diversification Physical (DP)		
DMED 150	3	Film Analysis & Storytelling (DA)	DMED 150	3
		Computing Literacy & Applications	ICS-100 or ICS-111	3
		Introduction to Computer Science		
		Digital Art	ART-112	3
Specialization Character Animation 24 Credits			Old 24 credits	
ART 113	3	Basic Drawing		3
DMED 130	3	Digital Storyboarding		3
DMED 140	3	Principles of Animation		
DMED 141	3	Introduction to 3D Animation		3
ART 214	3	Introduction to Life Drawing		3
DMED 240	3	Animation & Special Effects		3
DMED 242	3	Character Animation		3
DMED 243	3	3-D Modeling & Animation		3
		Cartoon Drawing & 2D Animation Techniques	ART-198D	3
New specialization Creative Media 24 credits			Old 21 credits	
ART 107D	3	Introduction to Digital Photography	Digital Photography	

ART 115D	3	Digital Design		
ART 156	3	Digital Painting		
ART 166	3	Digital Printmaking		
ART 202	3	Digital Imaging		
ART 207D	3	Intermediate Digital Photography		
ART 229	3	Interface Design I		
Elective	3	Choose one course from any other DMED specializations		
		Introduction to the Visual Arts	ART 101	3
New specialization Internet Publishing			Old 21 credits	
24 credits				
DMED 120	3	NetPrep Web Development	DMED 120	3
DMED 122	3	NetPrep Flash Animation	DMED 122	3
ICS 113	3	Database Fundamentals	ISC 113	3
ICS 151	3	Structured Database Programming	ICS 151	3
ART 229	3	Interface Design I		
ART 249	3	Interface Design II		
ICS 251	3	Advanced Database Programming	ICS 251	3
Elective	3	Choose one course from any other DMED specialization		
		Sound Design For Digital Media	DMED 133	3
		Intermediate Web Site Design	DMED 220	3
New Specialization Digital Video for the Web			Old 21 credits	
24 credits				
			Motion Graphics	
DMED 130	3	Digital Storyboard	DMED 130	3
DMED 132	3	Principles of Video Editing	DMED 132	3
DMED 133	3	Sound Design For Digital Media	DMED 133	3

ART 229	3	Interface Design I		
DMED 235	3	Digital Video for the Web		
DMED 236	3	Advanced Digital Video for the Web		
DMED 240	3	Animation & Special Effects	DMED 240	3
Elective	3	Choose one course from any other DMED specialization		3
		Character Animation	DMED-242	3
		NetPrep Flash Animation	DMED-122	3

New Specialization Video Games 24 credits

MUS 107	3	Music in World Cultures		
ICS 110	3	Introduction to Programming		
DMED 122	3	NetPrep Flash Animation		
DMED 141	3	Introduction to 3-D Animation		
ICS 136	3	Introduction to Mobile Device Application		
THEA 221	3	Beginning Acting I		
DMED 242	3	Character Animation		
Elective	3	One course from any other DMED specializations		

Degree: Associate in Science

Title: Natural Sciences

Description: A two-year degree with Concentrations in Life Science, Physical Science, Pre-Engineering, and Pre-Computer Science, to prepare students for further study in the sciences.

Effective Date: Fall 2014

Program Modifications:

1. Addition of Pre-Computer Science Concentration.
2. Addition of BIOL 265/265L or 275/275L in Life Science Concentration.
3. Various changes to qualified course in various categories.
4. Change of 2 WI courses from required to recommended.
5. Addition of UH Manoa College of Engineering articulation agreement.

Degree: Academic Subject Certificate

Title: Community Food Security

Description: The Academic Subject Certificate in Community Food Security is intended to provide the student with knowledge of the Community Food Security movement through course work and skills and knowledge about the operation of a certified organic farm and the sale of products grown on the farm. The courses will introduce them to the CFS movement both nationally and internationally, provide them the skills for growing foods organically, preparing farm products for sale to restaurants and markets, providing educational activities to elementary, middle and high school students; knowledge about Hawaiian culture; knowledge related to plants, nutrition, the environment and agriculture. With this foundation, it is anticipated that students will be able to pursue degrees in a variety of areas including, environmental resources, education, nutrition, culinary arts, and business.

Effective Date: Fall 2014

Program Modifications:

This is a request to delete the experimental course SOC 297 Advanced Issues in Sociology of Food and replace it with the approved course HWST 291 Contemporary Hawaiian Issues.

Degree: Academic Subject Certificate

Title: Digital Art: Photographic Emphasis

Description: An Academic Subject Certificate in Digital Art, encompassing a focus on visual art produced digitally. The certificate emphasizes digital photography.

Effective Date: Fall 2014

Program Modifications:

The program change in the proposal is to indicate that the emphasis is on digital photography. The old program was a more generalized field of study in digital art, including digital photography, digital painting and drawing, and digital printmaking.

Degree: Certificate of Achievement

Title: Accounting

Description: The Certificate of Achievement is designed to prepare the student for entry-level accounting positions in accounts receivable, accounts payable, payroll, inventory, bookkeeping, and other related fields.

Effective Date: Fall 2014

Program Modifications:

The following changes were approved (effective Fall 2013):

In the Fall 2011, ACC 134, Income Tax Preparation, was replaced with ACC 150, Using Quickbooks® in Accounting, but the appropriate program learning outcome was not added in field #2. PLO #2 "Use of appropriate software to complete accounting/bookkeeping tasks." was added to address the addition of ACC 150 to the curriculum.

The combination of Introductory Accounting courses in field #3 was revised due to the restructuring of ACC 124 and ACC 125. The changes to these courses were approved and made in the Fall 2011 semester and the program curriculum needed to update to reflect the restructuring of courses.

The following changes are proposed for Fall 2013 (effective Fall 2014):

Field #2 - Added PLO #6 "Utilize resources needed to find a job."

Field #3 - Added MATH 103 as an option to BUSN 188. Also added statement about transferability of MATH 103 to UH West Oahu.

Degree: Certificate of Achievement
Title: Business Technology
Description: Business Technology
Effective Date: Fall 2014

Program Modifications:

This is an approved Program of Study. Modifications are being made to add flexibility to the required courses in order to better prepare students for the workforce. Principles of Business, BUS 120, is being moved from a required course to an elective course in order to allow students to diversify their skills in a way that best suits their professional goals. Students will be required to choose an elective, from the approved list, in place of the BUS 120 requirement. BUS 120 is now listed as an approved elective for the Certificate of Achievement (CA).

Summary of Changes:

BUS 120, Principles of Business is being moved from required to elective. In place of the BUS 120 requirement, students will be required to choose a 100-level elective from the approved list.

Certificate of Achievement (33 credits)

BUSN 123 - Word Processing for Business (3)
BUSN 164 - Career Success (3)
BUSN 170 - Records & Information Management (3)
BUS 101 - Business Computer Systems (3)
MGT 121 - Customer Service (3)
Elective from approved 100-level list (3)

BUSN 166 - Professional Employment Preparation (1)
BUSN 188 - Business Calculations (3)
BUSN 193C - Cooperative Education (2)
BUS 201 - Microsoft® Office Advanced (3)
ENG 100 - Composition 1 (or equivalent) (3)
SP 151 - Personal and Public Speech (3)

In order to obtain a Business Technology certificate or degree, students must pass all required business (BUS), business technology (BUSN), management (MGT), accounting (ACC), and law (BLAW) courses with a grade of C or better.

Electives (100 level) (3 credits)

BUS 120 – Principles of Business (3)
HIT 102 – Introduction to Health Information Technology (3)
TIM 101 – Introduction to Travel Industry Management (3)
ACC 150 – Using QuickBooks in Accounting (3)
ACC 124 – College Accounting I (3)
BUSN 158 – Social Media and Collaboration Tools for Business (3)
Any Leeward CC Business Division course with the approval of the Business Technology Program Coordinator.

Degree: Certificate of Competence
Title: Human Services/Substance Abuse Counseling
Description: Certificate of Competence in Human Services/Substance Abuse Counseling
Effective Date: Fall 2014

Program Modifications:

We are changing this Certificate of Completion (CC) to a Certificate of Competence (CO) to comply with UHCCP #5.203 Program Credentials: Degrees and Certificates (2013).

Degree: Certificate of Competence
Title: Business Technology
Description: Certificate of Competence in Business Technology
Effective Date: Fall 2014

Program Modifications:

This is an approved Program of Study. Modifications are being made to add flexibility to the required courses in order to better prepare students for the workforce. Principles of Business, BUS 120, is being moved from a required course to an elective course in order to allow students to diversify their skills in a way that best suits their professional goals. Students will be required to choose an elective, from the approved list, in place of the BUS 120 requirement. BUS 120 is now listed as an approved elective for the Certificate of Competence (CO).

Along with this modification to the Business Technology CO, the Business Technology will be deleting the Administrative Support CC, Medical Receptionist CC, and Office Coordinator CC. Many of these certificates were originally created for special grant programs. The addition of an elective course to the modified CO allows students to have a focus within their CO, which was accomplished through the Administrative Support CC, Medical Receptionist CC, and Office Coordinator CC.

Summary of Changes:

BUS 120, Principles of Business is being moved from required to elective. In place of the BUS 120 requirement, students will be required to choose a 100-level elective from the approved list. A name change from Certificate of Completion (CC) to Certificate of Competence (CO) was made to align with new UHCC System Policy.

Certificate of Competence (18 credits)

BUSN 123 - Word Processing for Business (3)
BUSN 164 - Career Success (3)
BUSN 170 - Records & Information Management (3)
BUS 101 - Business Computer Systems (3)
MGT 121 - Customer Service (3)
Elective from approved 100-level list (3)

In order to obtain a Business Technology certificate or degree, students must pass all required business (BUS), business technology (BUSN), management (MGT), accounting (ACC), and law (BLAW) courses with a grade of C or better.

Electives (100 level) (3 credits)

BUS 120 – Principles of Business (3)
HIT 102 – Introduction to Health Information Technology (3)
TIM 101 – Introduction to Travel Industry Management (3)
ACC 150 – Using QuickBooks in Accounting (3)
ACC 124 – College Accounting I (3)
BUSN 158 – Social Media and Collaboration Tools for Business (3)
Any Leeward CC Business Division course with the approval of the Business Technology Program Coordinator.

Degree: Certificate of Competence

Title: Dining Room Supervision

Description: Certificate of Competence in Dining Room Supervision

Effective Date: Fall 2014

Program Modifications:

We are changing this Certificate of Completion (CC) to a Certificate of Competence (CO) to comply with UHCCP #5.203 Program Credentials: Degrees and Certificates (2013).

Degree: Certificate of Competence

Title: Preparation Cook

Description: Certificate of Competence in Preparation Cook

Effective Date: Fall 2014

Program Modifications:

We are changing this Certificate of Completion (CC) to a Certificate of Competence (CO) to comply with UHCCP #5.203 Program Credentials: Degrees and Certificates (2013).

LEEWARD COMMUNITY COLLEGE

ASSOCIATE IN SCIENCE - NATURAL SCIENCE (AS-NS)

Degree Requirements (Effective Fall 2014)

with CONCENTRATIONS in Life Science, Physical Science, Pre-Engineering, and Pre-Computer Science

The Associate of Science Degree (A.S. - Natural Science) is awarded to students who complete the following:

1. 60 credits, all in courses numbered 100.	4. One Hawaiian, Asian, Pacific (HAP) course.
2. General education and Concentration requirements, as indicated below.	5. Cumulative grade point average of 2.0 or higher for all
3. 12 credits of the requirements earned at Leeward CC.	courses numbered 100 or above completed at Leeward CC.

Foundation Requirements	Category	Course	Credits
I. Foundation Written Communication (FW) (3 credits required) ENG 100 or ESL 100/ENG 100E	FW		3
II. Foundation Symbolic Reasoning (FS) (4 credits required) MATH 205 (<i>MATH 215 is an option for Life Science students only</i>)	FS		4
III. Foundation Global Multicultural Perspectives (FG) (6 credits required from 2 groups) GROUP A: ANTH 151, ART 175, HIST 151 GROUP B: ANTH 152, ART 176, HIST 152 GROUP C: GEOG 151, MUS 107, REL 150	FG		3
	FG		3
	Foundation Credits (FW + FS + FG) (I + II + III)		13

Diversification Requirements

IV. Diversification Social Sciences (DS) (3 credits required) AMST 211, 212 PACS 108 SOC 100, 214, 218, 231, 250, 251 ANTH 150, 200, 210 POLS 110, 120, 130, 180 WS 151, 290 ECON 120*, 130*, 131* (<i>*Recommended for Pre-Engineering.</i>) GEOG 102 PSY 100, 180, 202, 240, 260 IS 221	DS		3
or other DS			
V. Diversification Arts, Humanities, and Literature (DA/DH/DL) (3 credits required) Diversification Arts (DA) (Mainly Theory) ART 101 THEA 101 MUS 108, 253, 281, 282, 283, 284 (Mainly Practice) ART 104, 104D, 105B, 105C, 106, 107, 107D, 112, 113, 113D, 114, 115, 123, 202, 213, 243, 244 DNCE 121, 131, 132, 160, 180 MUS 103, 104, 112, 113, 114, 121, 122, 180, 201, 221, 222, 232 THEA 221, 222, 240, 260 <i>SP 251* (* An option for Pre-Engineering only.)</i> Diversification Humanities (DH) AMST 201, 202 HAWST 107 (<i>recommended</i>) MUS 106, 265, 266 ART 171, 172, 180 HIST 231, 232, 241, 242, 260, 281, 282, 284 ASAN 203, 204 IS 250H PHIL 100, 101, 102, 200, 201, 211, 212, 213 GEOG 122 LING 102 REL 151, 200, 201, 202, 203, 204, 205, 207, 210 Diversification Literature (DL) EALL 271, 272 HWST 261 (formerly HUM 261) ENG 250, 251, 252, 253, 254, 255, 256, 257H, 257N HUM 262 or other DA/DH/DL	D__		3
VI. Diversification Natural Science (DB + DP + DY) (4 - 7 credits required) Diversification Physical (DP) (3 credits required) CHEM 161 (<i>CHEM 161B = 3 cr. 161 + 1 cr. 161L</i>)	DP	CHEM 161	3
Diversification Laboratory (DY) (1 credit required) CHEM 161L	DY	CHEM 161L	1
Diversification Biological (DB) (3 credits required* **) ANTH 215 PBT 141, 200, 264 <i>*Not required for Engineering but</i> BIOL 100, 101, 124, 130, 171, 172, 200, 201, 265, 275 <i>BIOL 101, 171, MICR 130 or ZOOL 101</i> BOT 101, 130 HORT 110 ZOOL 101, 200, 240, 241 <i>suggested for CEE.</i> FSHN 185 MICR 130 <i>**Life Science must choose BIOL 171.</i> or other DB	DB** **		
Diversification Credits (DS + DA/DH/DL + DB/DP/DY) (IV + V + VI)			

Total Foundation (I+II+III) and Diversification (IV+V+VI) credits from previous page.

VII. Concentration Requirements

Select one of the Natural Science Concentrations								Course	Credits
Life Science		Physical Science		Pre-Engineering		Pre-Computer Science			
CHEM 162	3 cr.	CHEM 162	3 cr.	CHEM 162	3 cr.	CHEM 162	3 cr.	CHEM 162	3
CHEM 162L	1 cr.	CHEM 162L	1 cr.	EE 150	3 cr.	CHEM 162L	1 cr.		
BIOL 171L	1 cr.	MATH 206	4 cr.	MATH 206	4 cr.	MATH 206	4 cr.		
BIOL 172	3 cr.	PHYS 170	4 cr.	PHYS 170	4 cr.	ICS 111	3 cr.		
BIOL 172L	1 cr.	PHYS 170L	1 cr.	PHYS 170L	1 cr.	ICS 141	3 cr.		
CHEM 272	3 cr.	PHYS 272	3 cr.	PHYS 272	3 cr.	ICS 211	3 cr.		
CHEM 272L	2 cr.	PHYS 272L	1 cr.	PHYS 272L	1 cr.	ICS 212	3 cr.		
BIOL 265/265L or	4 cr. or	PHYS 274 or	3 cr. or	MATH 231	3 cr.	ICS 241	3 cr.		
BIOL 275/275L	5 cr.	GG 101/101L or	4 cr. or	MATH 232	3 cr.	PHYS 151 or 170	3 cr.		
		CHEM 272/272L	5 cr.	EE 211 or	4 cr. or	PHYS 151L or 170L	1 cr.		
				CE 270	3 cr.	PHYS 152	3 cr.		
						PHYS 152L	1 cr.		
	18/19 cr.		20/21/22 cr.		28/29 cr.		31 cr.		

Concentration Requirements Credits (VII)

VIII. Optional Electives

Course	Credits

Life Science, Physical Science and Pre-Computer Science students may take up to 6 cr. of sequential Hawaiian or Second Language (HSL) courses.

Optional Electives credits (VIII)

IX. Natural Science Electives (NSE)

Select classes not chosen above and appropriate for your chosen baccalaureate degree. Consult a Counselor and UH Manoa Program Sheets.

BIOC 241	BOT 101	EE 150	MATH 206	OCN 101	PHYS 151*	*Life Science only.	Course	Credits
BIOC 251	BOT 101L	EE 211	MATH 206L	OCN 201	PHYS 151L*			
	BOT 130	EE 213	MATH 231	OCN 201L	PHYS 152*			
BIOL 171		EE 260	MATH 232		PHYS 152L*			
BIOL 171L	CE 270			PBT 100				
BIOL 172	CE 271	GG 101	ME 213	PBT 141	PHYS 170	ZOOL 200		
BIOL 172L		GG 101L		PBT 200	PHYS 170L	ZOOL 240		
BIOL 265	CHEM 162L	GG 103	MICR 130	PBT 200L	PHYS 272	ZOOL 241		
BIOL 265L	CHEM 272		MICR 140	PBT 264	PHYS 272L			
BIOL 275	CHEM 272L	HORT 110		PBT 275	PHYS 274			
BIOL 275L	CHEM 273							
	CHEM 273L	ICS 101		PHRM 203				

or other STEM course as appropriate with approval

Natural Science Electives (NSE) credits (IX)

Total Credits

Total Foundations and Diversification (I + II + III + IV + V + VI) + Concentration (VII) + HSL (VIII) + Natural Science Electives (IX)	
Hawaiian Asian Pacific (HAP) (1 course required)	60 required
Planning on transferring to UH Manoa? Consider taking Writing Intensive (WI) courses at LCC.	
Important note: Appropriate course substitutions may be made with the prior written approval of both the appropriate Division Chair and Dean.	

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View Program

Degree: Associate in Science
Division: Mathematics and Natural Sciences
Title: Natural Sciences
Description: A two-year degree with Concentrations in Life Science, Physical Science, Pre-Engineering, and Pre-Computer Science, to prepare students for further study in the sciences.
Effective Date: Fall 2014

1. **Are the program outcomes appropriate functions of the college and University? (Relationship to University and campus mission and development plans, evidence of continuing need for the program, projections of career opportunities for graduates, etc.)**

Leeward CC currently prepares students for transfer to a four-year baccalaureate program in the sciences. This program provides pathways, support, and recognition for those students' efforts, and it ensures that students will enter a baccalaureate science program with the skills and knowledge required to promote success.

This program addresses the Mission Statement of Leeward Community College by providing a pathway for science studies.

This program helps the college to meet these principles from the 2012-2013 Leeward Mission Statement: At Leeward Community College, we work together to nurture and inspire all students. We help them attain their goals through high-quality liberal arts and career and technical education. We foster students to become responsible global citizens locally, nationally, and internationally. We advance the educational goals of all students with a special commitment to Native Hawaiians.

2. **What are the outcomes of the program? (outcomes should be stated in terms of meeting student, community or State needs. Also includes Program Learning Outcomes.)**

The overall objective of the AS Natural Sciences degree is to allow students to complete a degree while completing the first two years of study towards a baccalaureate degree in STEM fields of study. This was not possible in two years with the additional course requirements of the Leeward CC AA degree.

Upon graduation, students will be able to:

1. analyze effectively
2. communicate scientific ideas and principles clearly and effectively
3. evaluate the aims and methods of science
4. analyze and apply fundamental mathematical, physical, and chemical concepts and techniques to scientific issues
5. analyze and apply fundamental concepts and techniques in their chosen field of study, such as biology, chemistry, geology, engineering, etc.
6. use computer technology to analyze and present experimental results

The first three PLOs correlate with the five statements regarding General Education Core and Graduation requirements for the Associate in Arts Liberal Arts degree.

3. **How is the program organized to meet its outcomes? (Description of curriculum organization, requirements, admission policies, advising and counseling, and other aspects of the program, with reference to its outcomes.)**

LEEWARD COMMUNITY COLLEGE

ASSOCIATE IN SCIENCE - NATURAL SCIENCE (ASNS) with CONCENTRATIONS in
Life Science, Physical Science, Pre-Engineering, and Pre-Computer Science

Degree Requirements

The Associate of Science Degree (AS - Natural Science) is awarded to students who complete the following:

1. 60 credits, all in courses numbered 100 and above.
2. General education and Concentration requirements, as indicated below.
3. 12 credits of the requirements earned at Leeward CC.
4. One Hawaiian, Asian, Pacific (HAP) course.
5. Cumulative grade point average of 2.0 or higher for all courses numbered 100 or above completed at Leeward CC.

Foundation Requirements

- I. Foundation Written Communication (FW) (3 credits required)
ENG 100 or ESL 100/ENG 100E
- II. Foundation Symbolic Reasoning (FS) (4 credits required)

MATH 205 (MATH 215 is an option for Life Science students only)

- III. Foundation Global Multicultural Perspectives (FG) (6 credits required from 2 groups)

GROUP A: ANTH 151, ART 175, HIST 151

GROUP B: ANTH 152, ART 176, HIST 152

GROUP C: GEOG 151, MUS 107, REL 150

Diversification Requirements

- IV. Diversification Social Sciences (DS) (3 credits required)
AMST 211, 212
ANTH 150, 200, 210
ECON 120*, 130*, 131* (*Recommended for Pre-Engineering.)
GEOG 102
IS 221
PACS 108
POLS 110, 120, 130, 180
PSY 100, 180, 202, 240, 260
SOC 100, 214, 218, 231, 250, 251
WS 151, 290
or other DS

- V. Diversification Arts, Humanities, and Literature (DA/DH/DL) (3 credits required)

Diversification Arts (DA)

(Mainly Theory)

ART 101

THEA 101

MUS 108, 253, 281, 282, 283, 284

(Mainly Practice)

ART 104, 104D, 105B, 105C, 106, 107, 107D, 112, 113, 113D, 114, 115, 123, 202, 213, 243, 244

DNCE 121, 131, 132, 160, 180

MUS 103, 104, 112, 113, 114, 121, 122, 180, 201, 221, 222, 232

SP 251* (* An option for Pre-Engineering only.)

THEA 221, 222, 240, 260 (formerly Drama 101, 221, 222, 240, and 260)

Diversification Humanities (DH)

AMST 201, 202

ART 171, 172, 180

ASAN 203 (formerly ASIAN 120), 204 (formerly ASIAN 121)

GEOG 122

HWST 107 (recommended)

HIST 231, 232, 241, 242, 260, 281, 282, 284
IS 250H
LING 102
MUS 106, 265, 266
PHIL 100, 101, 102, 200, 201, 211, 212, 213
REL 151, 200, 201, 202, 203, 204, 205, 207, 210

Diversification Literature (DL)

EALL 271, 272
ENG 250, 251, 252, 253, 254, 255, 256, 257H, 257N
HUM 262
HWST 261 (formerly HUM 261)

or other DA/DH/DL

VI. Diversification Natural Science (DB + DP + DY) (4 - 7 credits required)

Diversification Physical (DP) (3 credits required)
CHEM 161

Diversification Laboratory (DY) (1 credit required)

CHEM 161L

(CHEM 161B = 3 cr. 161 + 1 cr. 161L)

Diversification Biological (DB) (3 credits required* **)

ANTH 215
BIOL 100, 101 (formerly SCI 121), 124 (formerly SCI 124), 130, 171, 172, 200, 201, 265,
275
BOT 101, 130
FSHN 185 (formerly FSHN 285)
HORT 110
MICR 130
PBT 141, 200, 264
SCI 107
ZOO 101, 200, 240, 241

or other DB

*Not required for Engineering but BIOL 101, 171, MICR 130 or ZOO 101 suggested for CEE.

**Life Science must choose BIOL 171.

VII. Concentration Requirements

Select one of the Natural Science Concentrations

Life Science

CHEM 162 3 cr.
CHEM 162L 1 cr.
BIOL 171L 1 cr.
BIOL 172 3 cr.
BIOL 172L 1 cr.
CHEM 272 3 cr.
CHEM 272L 2 cr.
BIOL 265/265L or 4 cr. or
BIOL 275/275L 5 cr.

Physical Science

CHEM 162 3 cr.
CHEM 162L 1 cr.
MATH 206 4 cr.
PHYS 170 4 cr.
PHYS 170L 1 cr.
PHYS 272 3 cr.

PHYS 272L 1 cr.
PHYS 274 or 3 cr. or
GG 101/101L or 4 cr. or
CHEM 272/272L 5 cr.

Pre-Engineering

CHEM 162 3 cr.
EE 150 3 cr.
MATH 206 4 cr.
PHYS 170 4 cr.
PHYS 170L 1 cr.
PHYS 272 3 cr.
PHYS 272L 1 cr.
MATH 231 3 cr.
MATH 232 3 cr.
EE 211 or 4 cr. or
CE 270 3 cr.

Pre-Computer Science

CHEM 162 3 cr.
CHEM 162L 1 cr.
MATH 206 4 cr.
ICS 111 3 cr.
ICS 141 3 cr.
ICS 211 3 cr.
ICS 212 3 cr.
ICS 241 3 cr.
PHYS 151 or 170 3 cr.
PHYS 151L or 170L 1 cr.
PHYS 152 3 cr.
PHYS 152L 1 cr.

VIII. Optional Electives

Life Science, Physical Science and Pre-Computer Science students may take up to 6 cr. of sequential Hawaiian or Second Language (HSL) courses.

IX. Natural Science Electives (NSE)

Select classes not chosen above and appropriate for your chosen baccalaureate degree.
Consult a Counselor and UH Manoa Program Sheets.

BIOC 241
BIOC 251

BIOL 171
BIOL 171L
BIOL 172
BIOL 172L
BIOL 265
BIOL 265L
BIOL 275
BIOL 275L

BOT 101
BOT 101L
BOT 130

CE 270
CE 271

CHEM 162L
CHEM 272
CHEM 272L
CHEM 273

CHEM 273L

EE 150
EE 211
EE 213
EE 260

GG 101
GG 101L
GG 103

HORT 110

ICS 101

MATH 206
MATH 206L
MATH 231
MATH 232

ME 213

MICR 130
MICR 140

OCN 101
OCN 201
OCN 201L

PBT 100
PBT 141
PBT 200
PBT 200L
PBT 264
PBT 275

PHRM 203

PHYS 151* *Life Science only.
PHYS 151L*
PHYS 152*
PHYS 152L*

PHYS 170
PHYS 170L
PHYS 272
PHYS 272L
PHYS 274

ZOOL 200
ZOOL 240
ZOOL 241

or other STEM course as appropriate with approval

Hawaiian Asian Pacific (HAP) (1 course required) 1.

Planning on transferring to UH Manoa? Consider taking Writing Intensive (WI) courses at Leeward CC.

Important note: Appropriate course substitutions may be made with the prior written approval of both the appropriate Division Chair and Dean.

4. **Who will enroll in the program? (Special target groups, if any; number of majors expected by year for first five years; expected service to non-majors; evidence of student interest.)**

The program will recruit students from two general sources - incoming freshmen seeking a science degree and students enrolled in science courses to fulfill diversification requirements.

1. Incoming freshmen seeking a science degree will be recruited via counseling and Leeward CC's catalog containing degree descriptions. Students seeking a science degree will have formal, well-structured pathways.

2. Students will be recruited from the college's introductory science courses that non-science majors take to fulfill Gen Ed diversification requirements. Non-science majors commonly are inspired by introductory science courses to major in a science. The college's introductory course instructors will be able to counsel students using the pathways that correspond with the students' specific interest and goals.

5. **What resources are required for program implementation and first five-year cycle operation? (Number, source, and cost of faculty; library requirements; support personnel; estimated cost of supplies, equipment and CIP; facilities to be utilized; total funds required for program implementation and operation; expected source of funds, including sources of reallocated funds.)**

The ASNS Program Coordinator requires a small amount of release time each semester. There is no other additional cost. All the courses that fulfill degree requirements currently are offered by the college. The personnel, supplies, and equipment costs are part of the current college and MS Division's budget.

6. **How efficient will the program be? (Compare anticipated cost per SSH, cost per major, SSH/faculty, average class size or other quantitative measures with other programs in the college and similar programs on other UH campuses.)**

The proposed program will utilize classes already taught at Leeward CC. The efficiency of offering those classes will be determined by the standard methods already in place. Efficiency should be high since most of the required classes currently are fully or over enrolled. Since no new faculty are appointed to help with the program and no monies are allocated for supporting the program, the anticipated cost, cost per SSH, and cost per degree should be zero.

Comparisons with the AS-NS program offered at Kapiolani CC are as follows: Kapiolani CC reports a budget of \$741,973 per year after an initial \$1.25 million Tribal Colleges and Universities Program (TCUP) grant to start the program, and they awarded 43 degrees the first year and 113 the second.

The Teacher training program (AAT) at Leeward CC is a comparable program on this campus. They report a budget of about \$235,000 per year with an additional \$199,544 in General Funded Budget Allocation and \$38,642 in Special/Federal Budget Allocation, and they awarded 246 degrees the first year and 358 the second.

At Leeward CC 3 credits of release time was allocated by the college and 3 credits of release time was also provided by the Halau to generate the program.

After the program is approved it is expected that the information concerning cost per SSH, SSH/faculty, average class size and other quantitative measures will be available.

7. **How will effectiveness of the program be demonstrated? (Projected number of graduates yearly; placement of graduates; special accreditation; student satisfaction; career and employer satisfaction, etc.)**

Effectiveness will be evaluated by the number of graduates as well as the number of students following the pathways without obtaining a degree.

It is expected that 25 students will obtain degrees each year with a 10% increase during each of the first 5 years.

Graduates should continue their studies and obtain a four-year baccalaureate degree in STEM fields.

8. **What change is proposed in the program? (provide specific information on both the new and old program)**

1. Addition of Pre-Computer Science Concentration.
2. Addition of BIOL 265/265L or 275/275L in Life Science Concentration.
3. Various changes to qualified course in various categories.
4. Change of 2 WI courses from required to recommended.
5. Addition of UH Manoa College of Engineering articulation agreement.

9. **What is the rationale for the change? (if this is a substantive change, state how it aligns with the Division goals, College Strategic Plan, College Mission Statement, or other relevant documents)**

The change is to align the Leeward CC ASNS degree with that of Kapiolani CC and other community colleges as well as add an Concentration appropriate for Computer Science students.

10. **Is the change substantive enough to require a change in program title? If so, explain in detail.**

No.

11. **Is the program currently articulated with any certificate or degree program? If so, give details, dates of agreement(s) and explain any impact the proposed change may have upon articulation.**

The ASNS with a Concentration in Pre-Engineering is articulated with the UH College of Engineering as of November 2012. The agreement provides automatic entry to the UH Manoa College of Engineering as a transfer student upon completion of the ASNS with a Concentration in Pre-Engineering.


12. **Will the change require additional staff, equipment, facilities or other resources? If so, provide details and indicate whether they are available.**

No.

13. **Will the change increase or decrease the number of required hours for attainment of the certificate or degree? If so, provide details and justification.**

No.

Attachments

History	Version	File Name
	1	AS-Checklist_Fall2014.pdf

Campus: LEE
Updated By: WALBRITT
Updated Date: 02/06/2014 1:45 PM