

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

REQUESTOR CONTACT INFORMATION	
Date: June 14, 2012	Effective term of request (Semester-Year): Fall 2012
Name: Ron Umehira	Title: Dean of Career & Technical Education
Campus: Leeward Community College	Office/Department: Office of the Vice Chancellor of Academic Affairs
Phone: 808-455-0321	Email: umehira@hawaii.edu

1. PROGRAM CODE, MAJOR CODE, CONCENTRATION CODE		Banner forms: SMAPRLE, SOACURR, STVMAJR
Institution: Leeward CC (LEE)	College: Instructional	Department: Health Information Technology
<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: Associate in Science	Certificate: Certificate of Achievement, Certificate of Completion	
If requesting an existing Major code and/or Concentration code in Banner:		
Existing Major:	Existing Concentration:	
<small>Code</small>	<small>Description</small>	<small>Code</small> <small>Description</small>
If requesting a new <input checked="" type="checkbox"/> Major code or <input type="checkbox"/> Concentration code that does not exist in Banner:		
New Code [4 char/space limit]:    HIT	Description [30 char/space limit]:    Health Information Technology	
If a similar major/concentration code exists in Banner, please list the code:		
Is this major/concentration code being used the same way at other UH campuses?    No		
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 type="checkbox"/> Yes <input checked="" 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>		

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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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fall 2012
	Recruitment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fall 2012
	Admissions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fall 2012
	General Student	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fall 2012
	Academic History	<input checked="" 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, 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  
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<b>4. NEW COURSE SUBJECT CODE (Subject Alpha)</b>		Banner form: STVSUBJ
College: Leeward Community College	Department: Business Division	
Subject code [4 char/space limit]: HIT	Subject description [30 char/space limit]: Health Information Technology	

<b>5. NEW MINOR (Minor codes are listed on the Major code table)</b>		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):

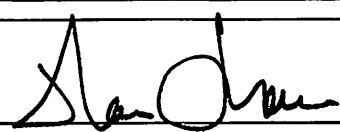
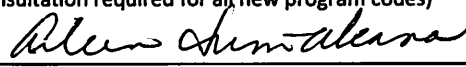
Request to create new banner codes for the AS, CA, and CC in Health Information Technology. Existing CC in Health Information Technology CC-BTEC-HIT is to be "grandfathered" for current students. However, all new students entering in Fall 2012 will be in the new CC-HIT program code. The new AS in HIT is financial aid eligible, but the new CA & CC in HIT has not yet been submitted to USDOE for approval but will soon be.

**SUPPORTING DOCUMENTATION**

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

- Board of Regents meeting minutes and supporting documents provided to the BOR
- Memo from UH President
- Memo from Chancellor
- Curriculum (required for requests for new programs/majors/minors/certificates)
- Gainful Employment Program notification to the US Department of Education
- Other: \_\_\_\_\_

UNIVERSITY OF HAWAII  
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<b>CAMPUS VERIFICATION</b>		
<b>Requestor Signature</b> <u>Pa Umehi</u>	<b>Date</b> <u>June 14, 2012</u>	
<b>Registrar</b> (If different from Requestor) <u>Warren Mau</u>	<u></u>	<u>June 14, 2012</u>
Print name	Signature	Date
Email/memo in lieu of Registrar's signature may be attached		
<b>Financial Aid Officer</b> (Financial Aid Officer consultation required for all new program codes) <u>Aileen Lum-Akana</u>	<u></u>	<u>June 14, 2012</u>
Print name	Signature	Date
Email/memo in lieu of Financial Aid Officer's signature may be attached		
<b>For Community Colleges, verification of consultation with OVPCC Academic Affairs:</b>		
<u>Suzette Robinson</u>	_____	<u>June 14, 2012</u>
Print name	Signature	Date
Email/memo in lieu of signature may be attached		

**Send completed form and supporting documentation to:**

Institutional Research and Analysis Office (IRAO)  
 1633 Bachman Place                      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.**

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



UNIVERSITY of HAWAII  
**LEEWARD**  
COMMUNITY COLLEGE

May 25, 2012

MEMORANDUM

TO: Linda Johnsrud  
Office of the Executive Vice President for Academic Affairs/Provost

VIA: Michael Pecsok *[Signature]*  
Vice Chancellor for Academic Affairs

FROM: Manuel J. Cabral *[Signature]*  
Chancellor

SUBJECT: Curriculum Approval

I have approved the new Associate in Arts in Hawaiian Studies and Associate in Science in Health Information Technology on 5/17/12 effective Fall 2012. The approvals can be found at:  
<http://curriculumcentral.its.hawaii.edu:8080/central/core.cas.jsp>

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

## Leeward Community College

<b>Degree:</b>	Associate in Science
<b>Division:</b>	Business Technology
<b>Title:</b>	Health Information Technology (HIT)
<b>Description:</b>	The Associate in Science (AS) Program of Study builds upon the Health Information Technology (HIT) foundation presented in the Certificate of Completion(CC) and Certificate of Achievement (CA) Programs of Study. Students will expand their records and information management skills in medical coding and medical records, including electronic records. Combined with the biological science, health statistics, and management courses, the students will be able to pursue careers as an Admissions Clerk, Cancer Registrar, Coder, Health Information Management (HIM) Technologist, Patient Access Supervisor, Privacy Officer, and/or Release of Information Technologist.
<b>Effective Date:</b>	Fall 2012

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**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.)**

Yes. Leeward CC Mission - 2011-2012 Catalog

**Access:** The HIT Program will provide a special opportunity for students on the Leeward Coast and neighbor islands. Delivery of this program is not limited to Hawaii; in fact, it can be offered regionally and internationally, with online courses that meet the Commission on Accreditation for Health Informatics and Information Management (CAHIIM) standards.

**Work Force Development:** The HIT Program will provide an opportunity for students in an area that has the largest economically disadvantaged and unemployed population in the State to prepare for high-demand, high-wage, highly-skilled careers.

Students who are displaced workers have an opportunity to enter a growing field. Current credentialed professionals, lacking a formal education, will have an opportunity to return to college and earn a certificate which will increase their chances for career mobility and promotion.

**Personal Development:** To provide opportunities for personal enrichment, occupational upgrading, and career mobility.

University of Hawaii System Strategic Plan – 2008-2015

**Native Hawaiian Educational Attainment.** Leeward CC service region has the largest Hawaiian population and Filipino population in the State.

**Educational Capital:** The proposed HIT Program will be offered traditionally and hybrid; and online will be phased in by the second year of the Five-Year Plan. It is projected that students on the Leeward Coast will be active participants in this program thus reaching low income students in an under-served region; and resources will be available through Leeward CC-Waianae.

A Five-Year Plan is in development which includes a stackable credential/degree: HIT Certificate of Completion (CC), Certificate of Achievement (CA), and the Associate in Science (AS) degree.

**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.)**

Students completing the Health Information Technology (HIT) Associate in Science (AS) will have the skills and knowledge necessary to become medical coders and reimbursement clerks in clinics, hospitals,

and other healthcare organizations.

According to Charles Friedman, Chief Scientific Officer, Office of the National Coordinator (ONC): "In the aggregate, we have estimated to get to meaningful use by almost all care venues in the country, we're going to need something like 50,000 more trained healthcare workers in these [EHR implementation] roles than the educational system as it currently exists can produce.

The healthcare industry HIT workforce shortage is being forecasted due to the following reasons.

1. Hospitals and physician practices are planning to implement EHR and HIE [Health Information Exchange] systems in order to realize both payment bonus and penalty avoidance incentives provided by the American Recovery and Reimbursement Act of 2009.
2. Federal government stimulus incentives for meaningful use of electronic health records within 1-2 years to receive maximum incentive payments.
3. Implement and demonstrate meaningful use of EHR system by 2019 to avoid penalties.
4. Tightened HIPAA [Health Insurance Portability and Accountability Act] data security standards.
5. Adopt ICD-10 [International Classification of Diseases - 10<sup>th</sup> Edition - Clinical Modification] coding and new transaction standards by October 2013, and closely follow reimbursements reforms for necessary revenue cycle system modifications.
6. The Affordable Care Act specifies development and operation of online health insurance exchanges in every state by 2014."

[Electronic Health Record]

#### **Program Learning Outcomes**

1. Perform coding tasks and maintain accurate reimbursement systems including the preparation of patient access, registration, and patient accounting statements.
2. Access, analyze, and interpret data to solve basic health information coding, patient accounting, and supervisory problems.
3. Interact with customers, vendors, and co-workers to effectively support the work with high customer satisfaction.
4. Organize, prioritize, and perform work tasks to meet deadlines and schedules.
5. Apply health information, records management, and patient financial/patient accounting laws; and code basic cases with industry reimbursement procedures by patient insurance type.

Job forecast:

Job title	SOC Code	National Total in Sector 62 (Healthcare)	Number of Current Jobs in Hawaii	Percentage Increase Estimated by 2018	Total Number of Positions	Positions Per Year (2009-2018)
Medical Records/Health Info Technicians	29-2071	143,890	650	20%	130	14
Medical Insurance Claims Processing Clerks	43-9041	5,050	530	25%	131	15
Computer Application Analyst (Healthcare)	*15-1121	17,230	940	20%	188	21
<b>TOTAL</b>					<b>449</b>	<b>50</b>

[http://bls.gov/oes/2009/may/oes\\_hi.htm](http://bls.gov/oes/2009/may/oes_hi.htm) Occupational Employment Statistics May 2009 State Occupational Employment and Wage Estimates, Hawaii

\* Note Computer healthcare analyst in 2010 Sector 62 Industry - Specific Occupational Employment and Wage Est. (Health Care) is listed as 15-1121 In 2009 Occupational Employment Statistics Computer Systems Analysts are listed as SOC 15-1051

This is a 2010 change [http://www.bls.gov/soc/soc\\_2010\\_whats\\_new.pdf](http://www.bls.gov/soc/soc_2010_whats_new.pdf)

**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.)**

The Program is designed to meet the (1) employment needs of the healthcare organizations and (2) needs of students who wish to participate in a training program that will lead to an Associate in Science (AS) in Health Information Technology (HIT) with the opportunity to obtain entry-level positions and advance to higher levels in medical facilities.

The Leeward CC counselors, especially the counselor assigned to the Business Division and to the Office of Continuing Education and Workforce Development (OCEWD), will be responsible for advising future and current students in the HIT Program. The Leeward CC counselors, especially the counselor assigned to the Business Division and to the Office of Continuing Education and Workforce Development (OCEWD), will be responsible for advising future and current students in the HIT Program.

BUS 101 – Business Computer Systems (3 credits)

BUSN 170 – Records and Information Management (3 credits)

BUSN 102 - Introduction to Health Information Technology (3 credits)

HLTH 110 – Medical Terminology (2 credits)

BUSN 115 – Reimbursement Methodologies (3 credits)

MGT 121 – Customer Service (3 credits)

ENG 100 – Composition I (3 credits)

BUSN 171 – Introduction to Medical Records (3 credits)

BUSN 106 – Introduction to Medical Coding (3 credits)

BIOL 130 – Anatomy and Physiology (4 credits)

BIOL 130L – Anatomy and Physiology (1 credit)

MGT 120 – Principles of Management (3 credits)

ECON 130 or 131 – Microeconomics or Macroeconomics (3 credits)



BUSN 197 - Disease Pathology and Pharmacology (3 credits) – Cross list with Math & Science Division

BUSN 108 - Introduction to Diagnosis Coding (3 credits)

BUSN 109 - Introduction to Procedure Coding (3 credits)

BUSN 137 – Computerized Databases – MS@Access (1 credit)

BUSN 198 - Health Statistics (3 credits) – Cross list with Math & Science Division

MGT 124 – Human Resources Management (3 credits)

BUSN 208 - Advanced Diagnosis Coding (3 credits)

BUSN 209 - Advanced Procedure Coding (3 credits)

BUSN 192V – Business Practicum (160 hours minimum) (2 credits)

HWST 107 - Hawai'i: Center of the Pacific (3 credits)

Total: 64 credits

Special note: BUSN 108 will be a course that provides a transition from ICD-9 to ICD-10.

In order to obtain a Health Information Technology (HIT) Associate in Science (AS), students must pass all required courses with a grade of C or better.

The program is organized in an order that the student builds a foundation (CC = 17 credits; CA = 34 credits; AS = 64 credits) as progressing through a recommended group of courses. Courses with required knowledge have prerequisites, and the counselors will have the program information to guide the student into the proper course sequence.

**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 is designed to meet the needs of Leeward CC students who choose to pursue an Associate in Science (AS) degree in Health Information Technology (HIT) with a desire to enter the job market, as well as employees at healthcare organizations who desire to upgrade their job opportunities upon completion of the Program.

The anticipated enrollment is 50 students per year. In a recent survey sent out in September 2011 to the Leeward Community College (Leeward CC) students taking business courses (Accounting, Business Technology, and Management), over 241 out of 388 students surveyed (or 62%) expressed an interest in taking courses and/or pursuing a certificate or degree in Health Information Technology (HIT).

According to the U.S. Bureau of Labor Statistics, coding and reimbursement is classified under the Broad Standard Occupational Classification (SOC) Code, 29-2070, Medical Records and Health Information Technicians; it is also listed as the detailed occupation, 29-2071. This classification is "one of the few health-related occupations in which there is no direct hands-on patient care."

U.S. Dept. of Labor, *Bureau of Labor Statistics Occupational Outlook Handbook, 2010-11 Edition*

<http://www.bls.gov/oco/ocos103.htm>

Occupation Description: Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards.

Job prospects should be very good. In addition to job growth, numerous openings will result from the need to replace.

Projections Data

Projections data from the National Employment Matrix

Occupational Title	SOC Code	Employment, 2008	Projected Employment, 2018	Change, 2008-18		Detailed Statistics	
				Number	Percent	(EDE)	(ALS)
Medical records and health information technicians	29-2071	172,500	207,600	35,100	20	(EDE)	(ALS)

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the Handbook introductory chapter on Occupational Information Included in the Handbook.

(<http://www.bls.gov/oes/current/oes292071.htm>), the Occupational Employment and Wages, May 2010, for Medical Records and Health Information Technicians (29-2071).

National estimates for this occupation: [Top](#)

Employment estimate and mean wage estimates for this occupation:

Employment (1)	Employment RSE (3)	Mean hourly wage	Mean annual wage (2)	Wage RSE (3)
176,090	0.9 %	\$16.83	\$35,010	0.4 %

Percentile wage estimates for this occupation:

Percentile	10%	25%	50% (Median)	75%	90%
Hourly Wage	\$10.21	\$12.29	\$15.55	\$20.27	\$25.69
Annual Wage (2)	\$21,240	\$25,570	\$32,350	\$42,170	\$53,430

- Hawaii is the third top paying state for this occupation.
  - Hourly mean wage: \$20.40
  - Annual mean wage: \$42,430
  
- Honolulu is eighth on the list of top-paying metropolitan areas.
  - Hourly mean wage: \$21.19
  - Annual mean wage: \$44,080

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 HIT AS includes 15 approved courses at Leeward CC, with 9 courses being in the Business Division. Six new courses (proposed BUSN 102, 115, 108, 109, 208, and 209) were created by the Business Technology faculty based on equivalent courses at OCEWD. In addition, BUSN 197, Disease Pathology and Pharmacology, and one new course, BUSN 198, Health Statistics, will be proposed as experimental courses; in addition, these courses will be cross listed with the Math and Science Division. The Business Division and OCEWD are working collaboratively to address the needs of the growing HIT industry.

There are no additional resources required to start this new AS, with the exception of the creation of BUSN 176, Health Statistics. The following table is a projection of enrollment, revenue, and expenses for the proposed HIT CC, CA, and AS five-year development plan. A program director is required for a CAHIIM accredited program, and a tenure-track faculty member at OCEWD was hired in Fall 2011.

YEAR	FY 1	FY 2	FY 3	FY 4	FY 5
<b>PROGRAM COSTS</b>					
Faculty w/o fringe	111,680	170,374	175,486	180,750	186,173
Other personnel costs w/o fringe	0	0	0	0	0
Library	3,000	3,000	3,000	3,000	3,000
Equipment/Supplies	2,000	2,000	2,000	2,000	2,000
Other – Virtual-lab (V-lab)	7,350	10,550	10,550	10,550	10,550
CAHIIM fees & visit	0	13,750	0	15,125	0
Computers	20,000	0	0	20,000	0
<b>TOTAL Expenses</b>	<b>144,030</b>	<b>199,674</b>	<b>191,036</b>	<b>231,425</b>	<b>201,723</b>
<b>REVENUES</b>					
Projected Enrollment	50	100	100	100	100
No. of Courses	12	23	23	23	23
No. of Credits	34	67	67	67	67
SSH	1,700	6,700	6,700	6,700	6,700
Tuition Rate/Credit	101	106	114	122	130
Total Revenue from Tuition	171,700	710,200	763,800	817,400	871,000
Other Sources of Income – V-lab	7,350	10,550	10,550	10,550	10,500
<b>TOTAL Revenues</b>	<b>179,050</b>	<b>720,750</b>	<b>774,350</b>	<b>827,950</b>	<b>881,550</b>

**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.)**

Classes requiring computers will be limited to twenty students at Leeward CC-Pearl City and to fifteen students at Leeward CC-Waianae. OCEWD has a current Virtual Lab (V-lab) with 100 site licenses.

See table in Number 5.

**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.)**

Program learning outcomes and program effectiveness will be assessed annually by the Business Technology Program and Health Information Technology faculty as part of the Business Technology Program review process. A new Health Information Technology Business and Industry Advisory Board will be created to involve the local professionals in assessing the program, including a member from the Waianae Coast Comprehensive Health Center (WCCHC).

Many students with current coding jobs will be in the AS Program. The students will also be encouraged to join the professional organizations for networking to find a job. Our Job Prep Services will also be able to assist our student graduates. It is projected that 50 students per year will graduate with an AS degree.

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**Campus:** LEE  
**Updated By:** KAYONO  
**Updated Date:** 02/07/2012 3:33 PM

## Leeward Community College

<b>Degree:</b>	Certificate of Achievement
<b>Division:</b>	Business Technology
<b>Title:</b>	Health Information Technology (HIT)
<b>Description:</b>	The Certificate of Achievement Program builds upon the HIT foundation presented in the Certificate of Completion Program. Students will expand their records and information management skills in medical coding and medical records, including electronic records. Combined with the biological science and management courses, the students will be able to pursue careers as a registration supervisor, patient access supervisor, or an entry-level insurance coordinator.
<b>Effective Date:</b>	Fall 2012

**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.)**

Yes. Leeward CC Mission - 2011-2012 Catalog

**Access:** The HIT Program will provide a special opportunity for students on the Leeward Coast and neighbor islands. Delivery of this program is not limited to Hawaii; in fact, it can be offered regionally and internationally, with online courses that meet the Commission on Accreditation for Health Informatics and Information Management (CAHIIM) standards.

**Work Force Development:** The HIT Program will provide an opportunity for students in an area that has the largest economically disadvantaged and unemployed population in the state to prepare for high-demand, high-wage, highly-skilled careers. Leeward CC service region has the largest Hawaiian population and Filipino population in the state.

**Personal Development:** To provide opportunities for personal enrichment, occupational upgrading, and career mobility.

Students who are displaced workers have an opportunity to enter a growing field. Current credentialed professionals, lacking a formal education, will have an opportunity to return to college and earn a certificate which will increase their chances for career mobility and promotion.

University of Hawaii System Strategic Plan – 2008-2015

Native Hawaiian Educational Attainment

**Educational Capital:** The proposed HIT Program will be offered traditionally and hybrid; and online will be phased in by the second year of the Five-Year Plan. It is projected that students on the Leeward Coast will be active participants in this program, thus reaching low income students in an under-served region; and resources will be available through Leeward CC Waianae.

A Five-Year Plan is in development which includes the HIT Certificate of Completion (CC), this Certificate of Achievement (CA), and the Associate in Science (AS) degree.

**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.)**

Students completing the Certificate of Achievement in Health Information Technology (HIT) will

have the skills and knowledge necessary to assist in maintaining accurate and timely medical data in clinics, hospitals, and other healthcare organizations.

According to Charles Friedman, Chief Scientific Officer, Office of the National Coordinator (ONC): "In the aggregate, we have estimated to get to meaningful use by almost all care venues in the country, we're going to **need something like 50,000 more trained healthcare workers in these [EHR implementation] roles than the educational system as it currently exists can produce.**

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2. Federal government stimulus incentives for meaningful use of electronic health records within 1-2 years to receive maximum incentive payments.
3. Implement and demonstrate meaningful use of EHR system by 2019 to avoid penalties.
4. Tightened HIPAA [Health Insurance Portability and Accountability Act] data security standards.
5. Adopt ICD-10 [International Classification of Diseases - 10<sup>th</sup> Edition - Clinical Modification] coding and new transaction standards by October 2013, and closely follow reimbursements reforms for necessary revenue cycle system modifications.
6. The Affordable Care Act specifies development and operation of online health insurance exchanges in every state by 2014."

[Electronic Health Record]

### Program Learning Outcomes

1. Perform basic coding tasks and maintain accurate reimbursement systems including the preparation of patient access, registration, and patient accounting statements.
  2. Access, analyze, and interpret data to solve basic health information coding, patient accounting, and supervisory problems.
  3. Interact with customers, vendors, and co-workers to effectively support the work with high customer satisfaction.
  4. Organize, prioritize, and perform work tasks to meet deadlines and schedules.
  5. Apply health information, records management, and patient financial/patient accounting laws; and code basic cases with industry reimbursement procedures by patient insurance type.
- 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.)**

The Program is designed to meet the (1) employment needs of the healthcare organizations and (2) needs of students who wish to participate in a training program that will lead to a certificate in Health Information Technology with the opportunity to obtain entry-level positions and advance to higher levels in medical facilities.

The Leeward CC counselors, especially the counselor assigned to the Business Division and to the Office of Continuing Education and Workforce Development (OCEWD), will be responsible for advising future and current students in the HIT Program.

**Certificate of Achievement in Health Information Technology (34 credits)**

BUS 101 – Business Computer Systems (3 credits)  
 BUSN 170 – Records and Information Management (3 credits)  
 BUSN 102\* - Introduction to Health Information Technology (3 credits)  
 HLTH 110 – Medical Terminology (2 credits)  
 BUSN 115\* – Reimbursement Methodologies (3 credits)  
 MGT 121 – Customer Service (3 credits)  
 ENG 100 – Composition I (3 credits)  
 BUSN 171 – Introduction to Medical Records (3 credits)  
 BUSN 106 – Introduction to Medical Coding (3 credits)  
 BIOL 130 – Anatomy and Physiology (4 credits)  
 BIOL 130L – Anatomy and Physiology (1 credit)  
 MGT 120 – Principles of Management (3 credits)

\* = proposed new courses submitted in Fall 2011

In order to obtain a Health Information Technology (HIT) certificate, students must pass all required courses with a grade of C or better.

**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 is designed to meet the needs of Leeward CC students who choose to pursue a certificate in Health Information Technology with a desire to enter the job market, as well as employees at healthcare organizations who desire to upgrade their job opportunities upon completion of the program.

The anticipated enrollment is 50 students per year. In a recent survey sent out in September 2011 to the Leeward Community College (Leeward CC) students taking business courses (Accounting, Business Technology, and Management), over 241 out of 388 students surveyed (or 62%) expressed an interest in taking courses and/or pursuing a certificate or degree in Health Information Technology (HIT).

**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 CA in HIT includes ten approved courses at Leeward CC, with six courses being in the Business Division. Two new courses (proposed BUSN 102 and BUSN 115) were developed by OCEWD and modified for approval through the Leeward CC curriculum process. The Business Division and OCEWD are working collaboratively to address the needs of the growing HIT industry.

There are no additional resources required for this modified HIT CA. The following table is a projection of enrollment, revenue, and expenses for the proposed HIT CC, CA, and AS five-year

development plan:

YEAR	FY 1	FY 2	FY 3	FY 4	FY 5
<b>PROGRAM COSTS</b>					
Faculty w/o fringe	111,680	170,374	175,486	180,750	186,173
Other personnel costs w/o fringe	0	0	0	0	0
Library	3,000	3,000	3,000	3,000	3,000
Equipment/Supplies	2,000	2,000	2,000	2,000	2,000
Other – Virtual-lab (V-lab)	7,350	10,550	10,550	10,550	10,550
CAHIIM fees & visit	0	13,750	0	15,125	0
Computers	20,000	0	0	20,000	0
<b>TOTAL Expenses</b>	<b>255,710</b>	<b>370,049</b>	<b>366,52</b>	<b>412,175</b>	<b>387,895</b>
<b>REVENUES</b>					
Projected Enrollment	50	100	100	100	100
No. of Courses	12	23	23	23	23
No. of Credits	34	67	67	67	67
SSH	1,700	6,700	6,700	6,700	6,700
Tuition Rate/Credit	101	106	114	122	130
Total Revenue from Tuition	171,700	710,200	763,800	817,400	871,000
Other Sources of Income – V-lab	7,350	10,550	10,550	10,550	10,500
<b>TOTAL Revenues</b>	<b>179,050</b>	<b>720,750</b>	<b>774,350</b>	<b>827,950</b>	<b>881,550</b>

**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.)**

There is no existing CA in HIT Program. Classes requiring computers will be limited to twenty students at Leeward CC and to fifteen students at Leeward CC Waianae. OCEWD has a current Virtual Lab (V-lab) with 100 site licenses.

See table in Number 5.

**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.)**

Program learning outcomes and program effectiveness will be assessed annually by the Business Technology Program and Health Information Technology faculty as part of the Business Technology Program review process. A new Health Information Technology Business and Industry Advisory Board will be created to involve the local professionals in assessing the program, including a member from the Waianae Coast Comprehensive Health Center (WCCHC). It is projected that 50 students per year will be in the Certificate of Achievement Program of Study.

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**Campus:** LEE  
**Updated By:** MLANE  
**Updated Date:** 02/09/2012 2:32 PM



## Leeward Community College

<b>Degree:</b>	Certificate of Completion
<b>Division:</b>	Business Technology
<b>Title:</b>	Health Information Technology (HIT)
<b>Description:</b>	The Certificate of Completion (CC) in Health Information Technology (HIT) develops a foundation in records and information management for a medical facility and the health information technology profession. Students completing the CC will have the skills and knowledge necessary to assist in maintaining accurate and timely medical data in clinics, hospitals, and other health care organizations. The CC will lead to job opportunities as patient access clerks, physician office clerks, registrars, registration clerks, and ward clerks.
<b>Effective Date:</b>	Fall 2012

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- 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.)**

**Yes. Leeward CC Mission - 2011-2012 Catalog**

**Access:** The HIT Program will provide a special opportunity for students on the Leeward Coast and neighbor islands. Delivery of this program is not limited to Hawaii; in fact, it can be offered regionally and internationally, with online courses that meet the Commission on Accreditation for Health Informatics and Information Management (CAHIIM) standards.

**Work Force Development:** The HIT Program will provide an opportunity for students in an area that has the largest economically disadvantaged and unemployed population in the state to prepare for high-demand, high-wage, highly-skilled careers. The Leeward CC service region has the largest Hawaiian population and Filipino population in the state.

**Personal Development:** To provide opportunities for personal enrichment, occupational upgrading, and career mobility.

Students who are displaced workers have an opportunity to enter a growing field. Current credentialed professionals, lacking a formal education, will have an opportunity to return to college and earn a certificate which will increase their chances for career mobility and promotion.

Leeward CC created this certificate in 2007 at the request of the Waianae Health Academy (WHA) to address the community needs. The objective of the WHA and the Native Hawaiian grant is to meet the personnel needs in entry- and managerial-levels for medical

information systems for health care organizations and to provide skills and training to Native Hawaiians so they can take advantage of career opportunities and advancements in healthcare organizations.

#### **University of Hawaii System Strategic Plan – 2008-2015**

##### **Native Hawaiian Educational Attainment**

**Educational Capital:** The proposed HIT Program will be offered traditionally and hybrid; and online will be phased in by the second year of the Five-Year Plan. It is projected that students on the Leeward Coast will be active participants in this program, thus reaching low income students in an under-served region; and resources will be available through Leeward CC Waianae.

**A Five-Year Plan is in development which includes this HIT certificate of completion (CC), the certificate of achievement (CA), and the associate in science (AS) degree.**

- 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.)**

Students completing the Certificate of Completion in HIT will have the skills and knowledge necessary to assist in maintaining accurate and timely medical data in clinics, hospitals, and other healthcare organizations.

This certificate was created in 2007 by Leeward CC to address the Leeward Coast community's need for additional education and training for information technology employees in medical facilities. This certificate was originally proposed as part of a Waianae Health Academy's federal grant.

According to Charles Friedman, Chief Scientific Officer, Office of the National Coordinator (ONC): "In the aggregate, we have estimated to get to meaningful use by almost all care venues in the country, we're going to **need something like 50,000 more trained healthcare workers in these [EHR implementation] roles than the educational system as it currently exists can produce.**

The healthcare industry HIT workforce shortage is being forecasted due to the following reasons.

1. Hospitals and physician practices are planning to implement EHR and HIE [Health Information Exchange] systems in order to realize both payment bonus and penalty avoidance incentives provided by the American Recovery and Reimbursement Act of 2009.

2. Federal government stimulus incentives for meaningful use of electronic health records within 1-2 years to receive maximum incentive payments.
3. Implement and demonstrate meaningful use of EHR system by 2019 to avoid penalties.
4. Tightened HIPAA [Health Insurance Portability and Accountability Act] data security standards.
5. Adopt ICD-10 [International Classification of Diseases - 10<sup>th</sup> Edition - Clinical Modification] coding and new transaction standards by October 2013, and closely follow reimbursements reforms for necessary revenue cycle system modifications.
6. The Affordable Care Act specifies development and operation of online health insurance exchanges in every state by 2014."

[Electronic Health Record]

### **Program Learning Outcomes**

1. Apply problem-solving skills and health care knowledge to address customer, patient, or organizational needs.
  2. Use computer and other office technology tools to accomplish administrative responsibilities in maintaining a secured information system while adhering to workplace policies and procedures and government laws.
  3. Use basic medical coding methodology and patient record guidelines to accurately process documents through the document life cycle.
- 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.)**

The Program is designed to meet the (1) employment needs of the healthcare organizations and (2) needs of students who wish to participate in a training program that will lead to a certificate in Health Information Technology with the opportunity to obtain entry-level positions and advance to higher levels in medical facilities.

The Leeward CC counselors, especially the counselor assigned to the Business Division and to the Office of Continuing Education and Workforce Development (OCEWD), will be responsible for advising future and current students in the HIT Program.

### **Approved - Certificate of Completion in Health Information Technology (19 credits)**

BUS 101 - Business Computer Systems (3 credits)

BUSN 170 - Records and Information Management (3 credits)

ICS 113 - Database Fundamentals (3 credits) - This course will be replaced by an additional one-credit course in Access which will be included in the proposed Associate in Science degree.

BUSN 106 - Introduction to Medical Coding (3 credits) - This course will be in the proposed C.A.

BUSN 105 - Introduction to Health Care Administration (3 credits) - This course will be replaced by the proposed, BUSN 102, Introduction to Health Information Technology.

BUSN 171 - Introduction to Medical Records (3 credits)

BUSN 192 - Business Practicum (1 credit) - This course will be included in the proposed Associate in Science degree.

Proposed Modification – Certificate of Completion in Health Information Technology (17 credits)

BUS 101 – Business Computer Systems (3 credits)

BUSN 170 – Records and Information Management (3 credits)

BUSN 102\* - Introduction to Health Information Technology (3 credits)

HLTH 110 – Medical Terminology (2 credits)

BUSN 115\* – Reimbursement Methodologies (3 credits)

MGT 121 – Customer Service (3 credits)

\* = proposed new courses submitted in Fall 2011

*In order to obtain a Health Information Technology (HIT) certificate, students must pass all required courses with a grade of C or better.*

*The modification supports the Five-Year development plan for a HIT Certificate of Achievement and Associate in Science degree.*

**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 is designed to meet the needs of Leeward CC students who choose to pursue a certificate in Health Information Technology with a desire to enter the job market, as well as employees at healthcare organizations who desire to upgrade their job opportunities upon completion of the program.

The anticipated enrollment is 50 students per year. In a recent survey sent out in September 2011 to the Leeward Community College (Leeward CC) students taking business courses (Accounting, Business Technology, and Management), over 241 out of 388 students surveyed (or 62%) expressed an interest in taking courses and/or pursuing a certificate or degree in Health Information Technology (HIT).

**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 CC in HIT includes four approved courses at Leeward CC, with three courses being in the Business Division. Two new courses (proposed BUSN 102 and BUSN 115) were developed by OCEWD and modified for approval through the Leeward CC curriculum process. The Business Division and OCEWD are working collaboratively to address the needs of the growing HIT industry.

There are no additional resources required for this modified HIT CC.

The following table is a projection of enrollment, revenue, and expenses for the proposed HIT CC, CA, and AS five-year development plan.

YEAR	FY 1	FY 2	FY 3	FY 4	FY 5
<b>PROGRAM COSTS</b>					
Faculty w/o fringe	111,680	170,374	175,486	180,750	186,173
Other personnel costs w/o fringe	0	0	0	0	0
Library	3,000	3,000	3,000	3,000	3,000
Equipment/Supplies	2,000	2,000	2,000	2,000	2,000
Other – Virtual-lab (V-lab)	7,350	10,550	10,550	10,550	10,550
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Computers	20,000	0	0	20,000	0
<b>TOTAL Expenses</b>	<b>255,710</b>	<b>370,049</b>	<b>366,52</b>	<b>412,175</b>	<b>387,895</b>
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<b>TOTAL Revenues</b>	<b>179,050</b>	<b>720,750</b>	<b>774,350</b>	<b>827,950</b>	<b>881,550</b>

**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 only existing CC in HIT is at Leeward CC; this CC in HIT is being modified.

Classes requiring computers will be limited to twenty students at Leeward CC and to fifteen students at Leeward CC Waianae. OCEWD has a current Virtual-Lab (V-lab) with 100 site licenses.

See table in Number 5.

**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.)**

Program learning outcomes and program effectiveness will be assessed annually by the Business Technology Program and Health Information Technology faculty as part of the Business Technology Program review process. A new Health Information Technology Business and Industry Advisory Board will be created to involve the local professionals in assessing the program, including a member from the Waianae Coast Comprehensive Health Center (WCCHC). It is

projected that 50 students per year will be in the Certificate of Completion Program of Study.

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**Campus:** LEE  
**Updated By:** MLANE  
**Updated Date:** 02/09/2012 2:28 PM



UNIVERSITY of HAWAII\*  
**LEEWARD**  
COMMUNITY COLLEGE

UNIVERSITY OF HAWAII

April 18, 2012 APR 24 P3:20

**BOR APPROVED 5/17/12**  
xc: Pearl Imada Iboshi  
Joanne Itano  
David Mongold

**MEMORANDUM** UNIVERSITY OF HAWAII  
PRESIDENT'S OFFICE

TO: Eric K. Martinson  
Chairperson, Board of Regents

VIA: M.R.C. Greenwood *[Signature]*  
President

VIA: John Morton *[Signature]*  
Vice President for Community Colleges

FROM: *for* Manuel J. Cabral *[Signature]*  
Chancellor *Mark Lane 4/20/12*

SUBJECT: Request to provisionally approve the establishment of the Associate in Science in Health Information Technology degree at Leeward Community College

SPECIFIC ACTION REQUESTED:

Approval by the Board of Regents to establish an Associate in Science in Health Information Technology (HIT) degree, a new provisional degree program.

ADDITIONAL COST:

Initially, this new HIT program will draw from students already enrolled in the Business Technology, Management, and OCEWD Programs. There will be no additional facilities and equipment costs; but additional costs will come from hiring one full-time faculty and lecturers that will specifically teach the HIT courses and additional sections of the Business Technology and Management courses. The one full-time position will come from an existing and recently vacated position within the Business Technology Program. Lecturers will handle the balance of the courses not taught by the full-time faculty.

Fifteen (15) courses or 40 credits within the proposed degree program are currently taught in the Business Technology, Management, Math and Science, and Arts and Humanities Programs, (7) courses or 21 credits were developed and rewritten as credit courses by the Office of Continuing Education and Workforce Development's (OCEWD) Health Technology Workforce Development Coordinator, and (1) course or 3 credits is a new course.

RECOMMENDED EFFECTIVE DATE:

Fall 2012

PURPOSE:

The requested action will establish a new 64 credit Associate in Science in Health Information Technology (HIT) degree. This addresses the current expanding workforce need due to changes in coding methodology, as well as state and federal mandates.

The HIT Program will impact the Leeward CC campuses in Pearl City and through Waianae's outreach programs by providing career opportunities in high-wage, high-demand, and high-skill occupations. Traditional, hybrid, and online modes of delivery will address the needs of the Leeward Coast students. Since this program plans to be offered through Distance Education, it will also address the neighbor-island needs to train new employees in the Health Information Technology (HIT) field and provide professional development for the current workforce.

BACKGROUND INFORMATION:

In 2007, the Business Technology Program at Leeward CC created and executed a Certificate of Completion in Health Information Technology with the Waianae Coast Comprehensive Health Center (WCCHC). WCCHC was awarded an Alu Like Grant for the Native Hawaiian Career and Technical Education Programs (NHCTEP) from the Department of Health and Human Services (DHHS) to offer a HIT certificate. In this new program, Leeward CC modified its current Certificate of Completion in HIT and included a stackable degree that leads to a Certificate of Achievement and Associate in Science degree.

During the planning process for this program, the Office of the Vice President for Community Colleges coordinated discussions with community college campuses interested in offering Health Information Technology Programs. In February 2012, Vice President Morton approved the submission by Leeward CC for an Authorization to Plan (ATP) a Health Information Technology Program with a focus on business applications. Subsequently, the ATP was vetted with the Council of Chief Academic Officers and approved by the Chancellor of Leeward CC.

Leeward CC has also consulted with the University of Hawai'i–West O'ahu (UHWO) and will work with them on the creation of a path to a four-year degree with courses that lead to the Registered Health Information Administrator (RHIA) credential in Health Information Management (HIM).

According to the U.S. Bureau of Labor Statistics, coding and reimbursement is classified under the Broad Standard Occupational Classification (SOC) Code, 29-2070, Medical Records and Health Information Technicians; it is also listed as the detailed occupation, 29-2071. This classification is "**one of the few health-related occupations in which there is no direct hands-on patient care.**" U.S. Dept. of Labor, *Bureau of Labor Statistics Occupational Outlook Handbook, 2010-11 Edition*.

[<http://www.bls.gov/oco/ocos103.htm>]



Job prospects should be very good. In addition to job growth, numerous openings will result from the need to replace employees due to attrition and retirement.

- Hawai'i is the **third top paying state** for this occupation.
  - Hourly mean wage: \$20.40
  - Annual mean wage: \$42,430
  
- Honolulu is **eighth on the list of top-paying metropolitan areas**.
  - Hourly mean wage: \$21.19
  - Annual mean wage: \$44,080

U.S. Department of Labor, Bureau of Labor Statistics website; Occupational Employment and Wages, May 2010, for Medical Records and Health Information Technicians (29-2071). [<http://www.bls.gov/oes/current/oes292071.htm>]

Students in the Honolulu area will earn more than their counterparts within the State of Hawai'i, as well as the nation. According to the Bureau of Labor Statistics' *Occupational Outlook Handbook 2006-07*, professional entry into these growth occupations typically will require undergraduate training, ranging from one-semester certificate programs to baccalaureate degree programs. Medical records professionals can enter the workforce directly with limited information technology (IT) training, while health information management and healthcare informatics professionals will require a thorough understanding of healthcare, project management, and, increasingly, solid IT skills.

Currently, there are approximately 80 American Health Information Management Association (AHIMA) certified coders in Hawai'i, which does not serve the needs of the state. Depending on the practice, there is one coder per every two to three physicians; there are 8,676 licensed physicians in Hawai'i (AMA Masterfile, 2008).

[<http://www.ahcc.hawaii.edu/docs/Hawaii%20Physician%20Workforce%20Summit%20Withy%20Presentation.pdf>]

Currently, Heald College in Honolulu is the only accredited HIT program with the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM). Heald College does not have an online program; therefore, does not meet the workforce development needs on the neighbor islands.

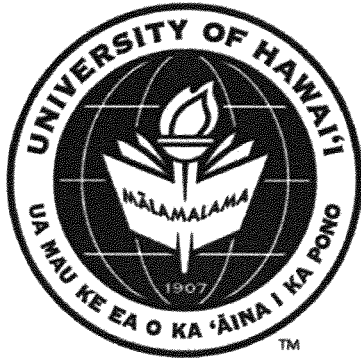
**ACTION RECOMMENDED:**

Approval is recommended for the provisional establishment of the Associate in Science in Health Information Technology degree at Leeward Community College effective Fall 2012.

Attachment

Leeward Community College's *New Program Proposal for an Associate in Science in Health Information Technology Degree*.

c: Executive Administrator and Secretary of the Board Amemiya



UNIVERSITY of HAWAII®

# LEEWARD

COMMUNITY COLLEGE

## New Program Proposal

Health Information Technology  
Associate in Science (AS)

Date of Proposal  
*Spring 2012*  
Proposed Date of Implementation  
*Fall 2012*

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## I. Introduction

The Business Division at Leeward Community College (Leeward CC) is proposing a Health Information Technology (HIT) Program leading to a Certificate of Achievement (CA) and Associate in Science (AS) degree that builds upon its approved Certificate of Completion (CC).

In 2007, the Business Technology (BTEC) Program at Leeward CC created and offered a CC in HIT with the Waianae Coast Comprehensive Health Center (WCCHC) as they were awarded an Alu Like Grant for the Native Hawaiian Career and Technical Education Programs (NHCTEP) from the Department of Health and Human Services (DHHS).

The BTEC Program's Business and Industry Advisory Board (April 2010 meeting) encouraged expanding the CC in HIT to an associate degree because of the upcoming need for HIT professionals. In this New Program Proposal, Leeward CC modified its current Certificate of Completion in HIT and included a stackable degree.

The need for the HIT certificates and degree is reflected in the following statement by Emma T. Thompson, RHIT, CCS, President of the Health Information Management Association of Hawai'i (HIMAH).

*The Health Information Technology degree is an extension of the activities of the Patient Access (Admissions) and Business Office (Finance) departments in most health care organizations and provider offices. HIT practitioners are the liaisons between these functions and care providers. They facilitate billing claims by coding and production of record copies and are able to discuss medical coding and documentation needs with the providers to do the same. The financial solvency of most organizations rely on the health information technicians who provide these business services.*

*We realize that there are not nearly enough HIT/ HIAs in the State of Hawai'i and many of our staff in acute care are seeking degrees online from mainland schools to try to meet the needs. Mainland colleges and universities are cost prohibitive for many of our residents. We also realize with ICD-10-CM [International Classification of Disease-Tenth Edition-Clinical Modification] and other ARRA initiatives that the needs will extend to the rural areas of the State so the Leeward community and outer islands will have some of the greatest needs for education specialization. The national association is forecasting critical shortages of professionals (particularly in rural areas).*

*We strongly recommend that Leeward offer this program because of their outreach to the rural and Hawaiian communities. We also advocate for offering it online so that the outer islands are able to meet their needs as well.*

During the planning process for this new program, the Office of the Vice President for Community Colleges coordinated discussions with community college campuses interested in offering Health Information Technology Programs. In February 2012, Vice President Morton approved the submission by Leeward CC for an Authorization to Plan (ATP) a Health Information Technology Program with a focus on business applications. Subsequently, the ATP and this New Program Proposal were vetted with the Council of Chief Academic Officers and approved by the Chancellor of Leeward CC.

Leeward CC's Business Division requests approval of the HIT Program. Once this is a Board of Regents' (BOR) approved Program, Leeward CC will seek the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) which would allow

Leeward CC students to take the national exam for an American Health Information Management Association (AHIMA) Registered Health Information Technology (RHIT) credential. This HIT Program would also lead toward CAHIIM tracks in coding and information security privacy specializations in 2016.

## II. Program Objectives

**“Health Information Management may be one of the hottest healthcare careers in the coming decade, with up to 50,000 new jobs anticipated in the field,”** according to the *Journal of AHIMA*, October 2010. There will be many jobs created by the American Recovery and Reinvestment Act (ARRA) HITECH and International Classification of Diseases, 10<sup>th</sup> revision, Clinical Modification/Procedure Coding System (ICD-10-CM/PCS) requirements.

The Leeward CC Health Information Technology (HIT) Program will

- build upon a 2007 approved HIT Certificate of Completion (CC);
- expand the HIT Program to include a Certificate of Achievement (CA) and Associate in Science (AS) degree;
- use approved Leeward CC courses and existing resources;
- refine and submit HIT specialized, non-credit courses for credit course approval;
- address the UH System Strategic Plan and Leeward CC Mission Statement;
- deliver a new Program to Pearl City students, as well as Leeward CC-Waianae students, that offers a high skill, high wage, and high demand career;
- deliver the Program with hybrid courses to meet the needs of Leeward Coast students, and migrate into an online program to address the needs of neighbor-island students;
- offer prior learning assessment (PLA) as a method to attract adult learners in the HIT profession to earn an associate degree;
- create an avenue for non-credit-program students to migrate to the credit HIT Program and vice versa;
- use the current Business Division and Office of Continuing Education and Workforce Development (OCEWD) counselors to promote the new Program; and
- work with the University of Hawai‘i–West O‘ahu (UHWO) to create a path for HIT students who want to pursue a bachelor’s degree in Health Information Management (HIM).

### A. Proposed HIT Program Learning Outcomes (PLOs)

1. Analyze health data and file structures according to industry standards for reporting, coding, storing, and retrieving.
2. Apply, synthesize, and analyze reimbursement methodologies.
3. Resolve issues while compiling with local, state, and federal regulations and follow industry-standard ethical guidelines.

4. Use technology, including specialty software, to effectively execute the duties of an allied health professional.
5. Apply good customer service skills including sensitivity to cultural diversity and respond to the needs of various providers throughout the continuum of healthcare.
6. Prepare for RHIT national certification and additional certifications in coding, as well as other professional opportunities to instill the importance of life-long learning through networking and continuing education activities.

### III. Relations to College Mission and University Strategic Plan

The Leeward CC 2008 - 2015 Strategic Plan is aligned with the University of Hawai'i Community College (UHCC) System and the University of Hawai'i (UH) System Strategic Plan.

#### A. Leeward CC Mission – 2011 - 2012 Catalog

**Access:** The HIT Program will provide a special opportunity for students on the Leeward Coast and neighbor islands. Delivery of this program is not limited to Hawai'i; in fact, it can be offered regionally and internationally, secondary to our development of online courses/program that will maintain the integrity of the institution and adhere to CAHIIM institution standards.

**Work Force Development:** The HIT Program will provide an opportunity for a new program that is high demand, high pay, in an area that has the largest unrepresented population in the State and the largest number of unemployed people. The Leeward Coast has the largest Hawaiian and Filipino population in the State; therefore, this degree program would be poised to offer a new opportunity for this community.

**Personal Development:** To provide opportunities for personal enrichment, occupational upgrading, and career mobility through credit and non-credit courses and activities.

Students that are displaced workers have an opportunity to enter a growing field. Current credential professionals, lacking a formal education, will have an opportunity to return to college and earn a degree, which will increase their chances for career mobility and promotion. OCEWD will offer external study courses that will prepare students for external certifications.

#### B. University of Hawai'i System Strategic Plan – 2008 - 2015

##### Native Hawaiian Educational Attainment

**Educational Capital:** The proposed HIT Program will be offered traditionally and hybrid; and online will be phased in by the second year of the three-year plan. It is proposed that students on the Leeward Coast will be active participants in this program thus reaching low-income students in an underserved region; and resources will be available through Leeward CC-Waianae.

**Globally Competitive Workforce:** Once the Leeward CC HIT Program is approved, meetings will be held with UHWO to create an articulation that will lead Leeward CC students toward a

bachelor's degree that focuses on Health Information Management courses. CAHIIM has required courses in a four-year program that will lead toward a Registered Health Information Administrator (RHIA) national certification which will offer our students career advancement opportunities. There will also be a need for managers as the HIT field increases its workforce and baby boomers retire.

As evidenced in the HIT Program Learning Outcomes (PLOs), the Program addresses the Leeward CC Institutional Learning Outcomes of Critical Thinking and Problem Solving; Written, Oral Communication, and Use of Technology; and Values, Citizenship, and Community.

The HIT Program will provide an opportunity for adult learners (industry professionals) to return for a degree that has not been offered in the UH System. Leeward CC is currently (Spring 2012) conducting a Prior Learning Assessment (PLA) pilot program; this new program can provide an avenue for adult learners to earn a degree faster than traditional students. According to the Council on Adult and Experiential Learning (CAEL), "PLA students had better academic outcomes, particularly in terms of graduation rates and persistence, than other adult students. Many PLA students also shortened the time required to earn a degree, depending on the number of PLA credits earned." [[http://www.cael.org/pdf/PLA\\_Fueling-the-Race.pdf](http://www.cael.org/pdf/PLA_Fueling-the-Race.pdf)]

CAEL is the recognized national expert on PLA and has set the Ten Standards for Assessing Learning. In November 2011, CAEL and Achieving the Dream signed a Memorandum of Understanding and issued the press release: *Giving Credit Where Credit's Due: New National Partnership Will Remove Obstacles, Accelerate Pace of Adult Learners Earning College Credentials*. LearningCounts.org was created to provide PLA credit for adults; however, it has been determined that this program and costs did not fit the needs of the Leeward CC students. Instead, Leeward CC has created its own PLA Program.

[[http://achievingthedream.org/sites/default/files/press\\_releases/ATD\\_Press\\_Release\\_111411.pdf](http://achievingthedream.org/sites/default/files/press_releases/ATD_Press_Release_111411.pdf)]

The Achieving the Dream Challenge [<http://www.achievingthedream.org/goal/challenge>]:

For the first time in U.S. history, the current generation of college-age Americans will be less educated than their parents' generation, yet our workplaces require higher-level skills than ever before. A healthy economy and democracy depend upon an educated citizenry, and increasingly, because of rapidly changing demographics and record levels of poverty, that means creating the conditions for more low-income students and students of color to attain postsecondary credentials.

Community colleges are a vital component in returning the U.S. to its place as a global leader in higher education degree attainment; however, fewer than half of all students who enter community college with the goal of earning a certificate or degree have met their goal six years later. And those numbers are much worse for low-income students and students of color. More than just their hopes and dreams are at stake: the very foundation of our economy depends on increasing student success.

#### IV. Needs Assessment

According to the U.S. Bureau of Labor Statistics, coding and reimbursement are classified under the Broad Standard Occupational Classification (SOC) Code, 29-2070, Medical Records and Health Information Technicians; coding and reimbursement are also listed as the detailed occupation, 29-2071. This classification is **"one of the few health-related occupations in which there is no direct hands-on patient care."**

U.S. Dept. of Labor, *Bureau of Labor Statistics Occupational Outlook Handbook, 2010-11 Edition* [<http://www.bls.gov/oco/ocos103.htm>]

Occupation Description: Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards.

### Projections Data

**Projections data from the National Employment Matrix**

Occupational Title	SOC Code	Employment, 2008	Projected Employment, 2018	Change, 2008-18		Detailed Statistics	
				Number	Percent	[PDF]	[XLS]
Medical records and health information technicians	29-2071	172,500	207,600	35,100	20	[PDF]	[XLS]

NOTE: Data in this table are rounded. See the discussion of the employment projections table in the *Handbook* introductory chapter on *Occupational Information Included in the Handbook*.

Job prospects should be very good. In addition to job growth, numerous openings will result from the need to replace.

U.S. Department of Labor, Bureau of Labor Statistics website; Occupational Employment and Wages, May 2010, for Medical Records and Health Information Technicians (29-2071). [<http://www.bls.gov/oes/current/oes292071.htm>]

**National estimates for this occupation: Top**

Percentile wage estimates for this occupation:

Employment estimate and mean wage estimates for this occupation:

Employment (1)	Employment RSE (3)	Mean hourly wage	Mean annual wage (2)	Wage RSE (3)	Percentile	10%	25%	50% (Median)	75%	90%
176,090	0.9 %	\$16.83	\$35,010	0.4 %	Hourly Wage	\$10.21	\$12.29	\$15.55	\$20.27	\$25.69
					Annual Wage (2)	\$21,240	\$25,570	\$32,350	\$42,170	\$53,430

- Hawai'i is the **third top paying state** for this occupation.
  - Hourly mean wage: \$20.40
  - Annual mean wage: \$42,430
- Honolulu is **eighth on the list of top-paying metropolitan areas**.
  - Hourly mean wage: \$21.19
  - Annual mean wage: \$44,080

Students in the Honolulu area will earn more than its counterparts within the State of Hawai'i, as well as the nation. According to the Bureau of Labor Statistics' *Occupational Outlook Handbook 2006-07*, professional entry into these growth occupations typically will require undergraduate training, ranging from one-semester certificate programs to baccalaureate degree programs. Medical records professionals can enter the workforce directly with limited IT training, while health information management and healthcare informatics professionals will require a thorough understanding of healthcare, project management, and, increasingly, solid IT skills.



Currently, there are approximately 80 AHIMA certified coders in Hawai'i, which does not serve the needs of the state. Depending on the practice, there is 1 coder for every 2 to 3 physicians; there are 8,676 licensed physicians in Hawai'i (AMA Masterfile, 2008).

<http://www.ahec.hawaii.edu/docs/Hawaii%20Physician%20Workforce%20Summit%20Withy%20Presentation.pdf>

For the first time in over 30 years, the Federal government has mandated a change from ICD-9 (International Classification of Diseases – 9<sup>th</sup> Edition) to ICD-10-M/PCS, which will be implemented in 2014. Due to the high level of education required to complete coding functions using ICD-10, additional certified coders will be needed that are trained in biomedical sciences, extensive coding, and reimbursement impacts. In addition, it is expected that coders will take four times longer to review and code a record using ICD-10 because of the higher level of specificity.

Currently, Heald College in Honolulu is the only HIT program with CAHIIM accreditation. Heald does not have an online program; therefore, does not meet the workforce development needs on the neighbor islands.

Leeward CC has also consulted with UHWO and will work toward the creation of a path to a four-year degree with courses that lead to the RHIA credential in Health Information Management (HIM). In the 2008 AHIMA salary study, it noted that a two-year education would open the door for many HIM careers. Some of the average national salaries are noted below.

<b>TITLE</b>	<b>AVG. SALARY**</b>
HIM Director	\$73,449
Compliance Officer	\$72,218
HIM Manager	\$64,225
HIM Educator	\$59,656
Technology Role	\$58,232
HIM Supervisor	\$50,362
Coding Professional	\$43,359
Other HIM Technician Roles	\$43,042
** Data retrieved from the 2008 AHIMA Salary Study	

## V. Curriculum

<b>First Semester</b> (17 credits)		<b>Certificate of Completion</b>	
<b>Course Alpha/No.</b>	<b>Course Title</b>	<b>Credits</b>	
BUS 101	Business Computer Systems	3	
BUSN 170	Records and Information Management	3	
BUSN 102	Introduction to Health Information Technology	3	
HLTH 110	Medical Terminology	2	
BUSN 115	Reimbursement Methodologies	3	
MGT 121	Customer Service	3	
<b>Second Semester</b> (17 + 17 = 34 credits)		<b>Certificate of Achievement</b>	
<b>Course Alpha/No.</b>	<b>Course Title</b>	<b>Credits</b>	
ENG 100	Composition I (FW)	3	
BUSN 171	Introduction to Medical Records	3	
BUSN 106	Introduction to Medical Coding	3	
BIOL 130	Anatomy and Physiology (DB)	4	
BIOL 130L	Anatomy and Physiology Lab (DY)	1	
MGT 120	Principles of Management	3	

<b>Third Semester</b> (17 + 17 + 15 = 49 credits)			
<b>Course Alpha/No.</b>	<b>Course Title</b>	<b>Credits</b>	
ECON 130 or 131	Microeconomics or Macroeconomics (DS) <i>(Social Science course)</i>	3	
BUSN 108	Introduction to Diagnosis Coding	3	
BUSN 109	Introduction to Procedure Coding	3	
BUSN 175	Disease Pathology and Pharmacology <i>(cross list with Math &amp; Science Division)</i>	3	
MGT 124	Human Resources Management	3	
<b>Fourth Semester</b> (17 + 17 + 15 + 15 = 64 credits)		<b>Associate in Science</b>	
<b>Course Alpha/No.</b>	<b>Course Title</b>	<b>Credits</b>	
BUSN 137	Computerized Databases—MS® Access	1	
BUSN 176	Health Statistics <i>(cross list with Math &amp; Science Division)</i>	3	
BUSN 192	Business Practicum (160 hours minimum)	2	
BUSN 208	Advanced Diagnosis Coding	3	
BUSN 209	Advanced Procedure Coding	3	
HWST 107	Hawai'i: Center of the Pacific (DH/HAP) <i>(Arts &amp; Humanities elective)</i>	3	

## **General Education Requirements**

Total = 17 credits

### Foundations – 6 credits

FW – ENG 100, Composition I

FS\* – BUSN 176, Health Statistics (\*Will request FS designation.)

### Diversification – 11 credits

DB – BIOL 130, Anatomy and Physiology

DY – BIOL 130L, Anatomy and Physiology Lab

DH – HWST 107, Hawai'i: Center of the Pacific

DS – ECON 130 or 131, Microeconomics or Macroeconomics

## **CAHIIM Concentration Requirements**

Total = 43 credits

BUS 101, Business Computer Systems

BUSN 102, Introduction to Health Information Technology

BUSN 106, Introduction to Medical Coding

BUSN 108, Introduction to Diagnosis Coding

BUSN 109, Introduction to Procedure Coding

BUSN 115, Reimbursement Methodologies

BUSN 170, Records and Information Management

BUSN 171, Introduction to Medical Records

BUSN 175, Disease Pathology and Pharmacology

BUSN 192, Business Practicum

BUSN 208, Advanced Diagnosis Coding

BUSN 209, Advanced Procedure Coding

HLTH 110, Medical Terminology

MGT 120, Principles of Management

MGT 124, Human Resources Management

## **Additional Requirements**

Total = 4 credits

BUSN 137, Computerized Databases—MS® Access

MGT 121, Customer Service

## **AS Degree in Health Information Technology**

Total = 64 credits

## **VI. Enrollment Projections**

Leeward CC proposes an initial cohort 20 students, with one new cohort each year of 20 additional students. Thus after the first year, assuming on time graduation, there will be 40 students in the program at any given time. By following the recommended schedule, a full-time student will complete the associate degree in four semesters. The present projected start date is Fall 2012.

In a survey sent out in September 2011 to the Leeward CC students taking business courses (Accounting, Business Technology, Management, and Liberal Arts majors), out of 388 students that took the survey, 62% or 241 students expressed an interest in taking courses and/or pursuing a certificate or degree in Health Information Technology (HIT). Additionally, 43% or 167 of the students expressed an interest in pursuing a bachelor's degree at UHWO. In regards to the mode of course delivery, majority of the students were interested in a combination of in-person, online, and hybrid deliveries. Business students are interested in Medical Records/Health Information Technician positions because there is no direct hands-on patient care.

The Program will recruit students from three general sources: (1) incoming freshmen seeking a degree in HIT, (2) current Leeward CC students, and (3) current HIT professionals aligning their career with the CAHIIM Vision 2016 forecasting an associate degree requirement for coding.

## VII. Resources Required for Program Implementation

By addressing workforce demands for certified coders, the Business Division will create a HIT Program that shares faculty and resources with the Office of Continuing Education and Workforce Development (OCEWD). Procedures will be established to allow students to interchange between the two credit and non-credit HIT programs and provide educational opportunities, not barriers, for students.

The CAHIIM accreditation is a major factor in the success of this new HIT Program. CAHIIM requires a Program Director and one additional full-time faculty member. OCEWD will provide the Program Director who must be certified as a Registered Health Information Technician (RHIT) or Registered Health Information Administrator (RHIA), and must have at minimum a baccalaureate degree. The Leeward CC HIT Program Director meets the required CAHIIM requirements with a bachelor's degree and RHIA, RHIT, CHP (Certified in Healthcare Privacy), and CCS (Certified Coding Specialist) certifications. Other OCEWD and Business Division lecturers meet the requirements for an instructor to teach the HIT courses.

It is expected that most students enrolled in the program will come from the existing base of business students or will be new students choosing HIT instead of other business majors. Thus no significant new resources are required to offer the HIT Program. A currently vacant Business Technology tenure-track faculty position will be reallocated to the HIT Program upon UH BOR approval of the HIT AS degree program. The position will be expected to teach HIT courses as well as other Business Technology courses where needed. The current HIT Program Director has the CAHIIM certifications required to manage the program. There is currently a counselor housed in the Business Division to advise students on its programs. There is sufficient capacity in the Campus Computing Labs to accommodate the projected class load. Since the major costs of the program are for instruction, the program is scalable with some economies from fixed costs.

In the Academic Cost and Revenues Template on page 12, expenditures and revenues are projected for three years, Fall 2012 through Spring 2015; the rationale for the projections is provided below.

The **Headcount Enrollment (A)** and **Annual SSH (B)** is calculated based on planning that a cohort of 20 students will enter the program each year, that students will take a full load of 32 credits each year, and that each year, after the first year, 20 students will graduate. Thus after

the first year, there will 40 students in the program at any given time. SSH is based on students taking 32 credits per year.

Calculations of **Instructional Costs without Fringe (C)** is based on a first year teaching capacity of 32 credits that calculates approximately 1.20 FTE (32 credits/27 credit full load). For the subsequent years, as enrollment doubles, teaching capacity will double to 64 credits or approximately 2.40 FTE (64 credits/27 credit full load). Since courses are taught by a combination of full-time faculty and lecturers, the assumption is made that full FTE is taught by full-time faculty and fractional FTE is taught by lecturers (e.g. 2.40 FTE assumes 2.00 FTE is taught by full time faculty and 0.40 FTE is taught by lecturers). Salary is based on entry 9-month faculty and B range lecturer.

**Other Personnel Costs (D)** are for the Program Director and are based on 3 credits of overload. It is assumed a significant amount of Project Director time will be spent the first year of operation for start-up and the second year for accreditation work.

**Unique Program Costs (E)** were calculated based upon library resources (\$500/year), software licenses (\$3,750), and CAHIIM Accreditation fees (\$13,750 – second year).

Revenues generated by **Tuition (G)** are based on the number of SSH multiplied by the applicable tuition; the tuition was based on the *Proposed Tuition Schedule* for the UHCC's. [<http://www.hawaii.edu/offices/app/>]

Revenues in **Other (H)** are based on the offsetting costs that the OCEWD unit will support.

**Instructional Cost with Fringe (K1)** (see C).

The **Support Costs (L)** and **Total Campus Expenditure (N)** are from Leeward CC's page on the 2010-2011 UH Expenditures Report. [<http://www.hawaii.edu/budget/expend.html>]

The program used for **Comparable Cost/SSH (O)**, also taken from the above Expenditures Report, is Business Technologies.

## VIII. Measures of Program Efficiency

The Program Efficiency will be measured by the University of Hawai'i Community College Instructional Annual Report of Program Data (ARPD) which includes the following indicators: (a) average class size, (b) fill rate, (c) FTE BOR appointed faculty, (d) majors to FTE BOR appointed faculty, (e) overall program budget allocation, and (f) cost per SSH.

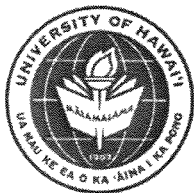
## IX. Measures of Program Effectiveness

The Program Effectiveness will be measured by the University of Hawai'i Community College Instructional Annual Report of Program Data (ARPD) which includes the following indicators: (a) successful completion (equivalent C or higher), (b) withdrawals, (c) persistence (fall to spring), (d) degrees/certificates awarded, and (e) transfers to UH 4-year universities.

Leeward CC – New Program Proposal

	A	B	C	D	E	F	G	H	I	J	K
1	Academic Cost and Revenue Template - New Program (adjust template for appropriate number of years) (Updated 09/06/11)										
2											
3	ENTER VALUES IN YELLOW CELLS ONLY										
4	CAMPUS/Program			Leeward CC/AS in HIT							
5	Provisional Years (2 yrs for Certificate, 3 yrs for Associate Degree, 6 yrs for Bachelor's Degree, 3 yrs for Masters Degree, 5 yrs for Doctorate)										
6				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
7	ENTER ACADEMIC YEAR (i.e., 2011-2012)			2012-2013	2013-2014	2014-2015					
8	Students & SSH										
9	A. Headcount enrollment (Fall)			20	40	40					
10	B. Annual SSH			840	1,280	1,280					
11											
12	Direct and Incremental Program Costs Without Fringe										
13	C. Instructional Cost without Fringe			\$ 62,780	\$ 129,330	\$ 133,209					
14	C1. Number (FTE) of FT Faculty/Lecturers			1.20	2.40	2.40					
15	C2. Number (FTE) of PT Lecturers			-	-	-					
16	D. Other Personnel Costs			\$ 4,110	\$ 4,323	\$ -					
17	E. Unique Program Costs			\$ 4,250	\$ 18,000	\$ 4,250					
18	F. Total Direct and Incremental Costs			\$ 71,140	\$ 151,653	\$ 137,459					
19											
20	Revenue										
21	G. Tuition			\$ 64,640	\$ 135,680	\$ 145,920					
22	Tuition rate per credit			\$ 101	\$ 106	\$ 114					
23	H. Other			\$ 5,000	\$ 5,000	\$ 5,000					
24	I. Total Revenue			\$ 69,640	\$ 140,680	\$ 150,920					
25											
26	J. Net Cost (Revenue)			1,500	10,973	-13,461					
27											
28											
29											
30	Program Cost per SSH With Fringe										
31	K. Instructional Cost with Fringe/SSH			\$ 132	\$ 136	\$ 140					
32	K1. Total Salary FT Faculty/Lecturers			\$ 62,780	\$ 129,330	\$ 133,209					
33	K2. Cost including Fringe of K1			\$ 84,753	\$ 174,596	\$ 179,632					
34	K3. Total Salary PT Lecturers										
35	K4. Cost including fringe of K3										
36	L. Support Cost/SSH			\$ 150	\$ 150	\$ 150					
37	Non-Instructional Exp/SSH			\$ 123	\$ 123	\$ 123					
38	System-wide Support/SSH			\$ 27	\$ 27	\$ 27					
39	Organized Research/SSH										
40	M. Total Program Cost/SSH			\$ 282	\$ 288	\$ 290					
41	N. Total Campus Expenditure/SSH			\$ 298	\$ 298	\$ 298					
42											
43	Instruction Cost with Fringe per SSH										
44	K. Instructional Cost/SSH			\$ 132	\$ 136	\$ 140					
45	O. Comparable Cost/SSH			\$ 137	\$ 137	\$ 137					
46	Program used for comparison.			Business Technologies (LEE CC)							
47											
48	Reviewed by campus VC for Administrative Affairs:			(signature and date) <i>Mark Lane 4/5/12</i>							
49	Instructions										
50	Please include an explanation of this template in your narrative.										
51	A. Headcount Enrollment: Headcount enrollment of majors each Fall semester. Located at url: <a href="http://www.hawaii.edu/ro/mans.php?cat=roov=Enrollment">http://www.hawaii.edu/ro/mans.php?cat=roov=Enrollment</a> . Campus data may be used when majors are a subset of enrollment reported in IRO reports.										
52	B. Annual SSH: Course Registration Report located at url: <a href="http://www.hawaii.edu/ro/mans.php?title=Course+Registration+Report">http://www.hawaii.edu/ro/mans.php?title=Course+Registration+Report</a> . Add the SSH for the Fall and Spring reports to obtain the annual SSH. This is all SSH taught by the program, including to non-majors. Adjust if majors are subset of SSH reported.										
53	C. Instructional Cost without Fringe (automated calculation): Direct salary cost for all faculty and lecturers teaching in the program. *Formula for column D: =IF(OR(D32<>"",D32>D34,""))										
54	C1. Number of full time faculty and lecturers who are >.5 FTE.										
55	C2. Number of part time lecturers who are <.5 FTE.										
56	D. Other Personnel Cost: Salary cost (part or full time) for personnel supporting the program (APT, clerical lab support, advisor, etc.) This includes personnel providing necessary support for the program who may not be directly employed by the program and may include partial FTEs. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.										
57	E. Unique Program Cost: Costs specific to the program for equipment, supplies, insurance, etc. For provisional years, this would be actual cost. For established years, this would be projected costs using amortization for equipment and add 4% per year for inflation thereafter.										
58	F. Total Direct and Incremental Cost: C + D + E *Formula for column D: =IF(OR(D13<>"",D16<>0,D17<>0),SUM(D13,D16,D17),"")										
59	G. Tuition: Annual SSH X resident tuition rate/credit *Formula for column D: =IF(D10>0,D10/D22,"")										
60	H. Other: Other sources of revenue including grants, program fees, etc. This should not include in-kind contributions unless the services or goods contributed are recorded in the financial records of the campus and included in Direct and Incremental Costs in this template.										
61	I. Total Revenue: G + H *Formula for column D: =IF(OR(D21<>"",D23<>0),SUM(D21,D23),"")										
62	J. Net Cost: F - I This is the net incremental cost of the program to the campus. A negative number here represents net revenue (i.e., revenue in excess of cost) if there is a net cost, please explain how this cost will be funded. *Formula for column D: =IF(AND(D18<>"",D24<>0),D18-D24,"")										
63	K. Instructional Costs with Fringe/SSH: (K2 + K4) / B *Formula for column D: =IF(D10<>"",SUM(D33,D35)/D10,"")										
64	K1. Salaries without Fringe of Full Time Faculty and Lecturers who are > .5 FTE based on FTE directly related to the program. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.										
65	K2. K1 X 1.35 *Formula for column D: =IF(D32="","",D32*1.35)										
66	K3. Salaries without Fringe for Lecturers who are < .5 FTE based on FTE directly related to the program. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.										
67	K4. K3 X 1.05 *Formula for column D: =IF(D34="","",D34*1.05)										
68	L. Support Cost/SSH: The campus' non instructional expenditure/ssh + systemwide support - organized research (UHM only) as provided by UH Expenditure Report ( <a href="http://www.hawaii.edu/budget/expend.html">http://www.hawaii.edu/budget/expend.html</a> ) *Formula for column D: =IF(OR(D37>0,D38>0,D39>0),D37+D38-D39,"")										
69	For example, from the 2009-10 UH Expenditure Report, the support expenditure/ssh per campus is:										
70											
71											
72	UHM \$450.00 + \$68 - \$131 for organized research = \$375										
73	UHH \$389.00 + \$42 = \$411										
74	UHWO \$210.00 + \$31 = \$241										
75	Haw CC \$184.00 + \$37 = \$201										
76	Hon CC \$233.00 + \$46 = \$279										
77	Kap CC \$119.00 + \$29 = \$148										
78	Kau CC \$359.00 + \$64 = \$423										
79	Lee CC \$123.00 + \$27 = \$150										
80	Mau CC \$163.00 + \$36 = \$199										
81	Win CC \$277.00 + \$41 = \$318										
82											
83	M. Total Program Cost/SSH: K + L *Formula for column D: =IF(OR(D31<>"",D36<>""),D31+D36,"")										
84	N. Total Campus Expenditure/SSH: Taken from UH Expenditure Report For example, for 2009-2010: UHM = \$923-131 (organized research) = \$792, UHH = \$682, UHWO = \$501, HawCC = \$408, HonCC = \$505, KapCC = \$316, KauCC = \$703, LeeCC = \$300, Mau CC = \$396, WinCC = \$457										
85	O. Comparable Program/Division Instructional Cost/SSH: Taken from UH Expenditures Report ( <a href="http://www.hawaii.edu/budget/expend.html">http://www.hawaii.edu/budget/expend.html</a> ) or campus data, as available. Please note in the space provided, the program used for the comparison.										
86											
87	Rev. 09/06/11										

## APPENDIX A – Proposed HIT Courses, Certificates, and Degree



UNIVERSITY of HAWAII\*  
**LEEWARD**  
COMMUNITY COLLEGE

**Business Division**

### Health Information Technology (HIT) Proposal

*Modification of a Certificate of Completion  
Building toward a Certificate of Achievement and an Associate in Science*

In order to obtain a Health Information Technology (HIT) certificate or degree, students must pass all required business (BUS), business technology (BUSN), management (MGT), health (HLTH), and science (Disease Pathology and Pharmacology) courses with a grade of C or better.

Certificate of Completion (17 credits)		First Semester	
Course Alpha/No.	Course Title	Credits	Currently Online
BUS 101	Business Computer Systems	3	✓
BUSN 170	Records and Information Management	3	
BUSN 102*	Introduction to Health Information Technology**	3	
HLTH 110	Medical Terminology	2	✓
BUSN 115*	Reimbursement Methodologies**	3	
MGT 121	Customer Service	3	✓
<b>Job Opportunities</b> Patient Access Clerk, Physician Office Clerk, Registrar, Registration Clerk, Ward Clerk			
<b>National Certification</b> National Association of Healthcare Access Management (NAHAM); Certified Healthcare Access Associate (CHAA)			

Certificate of Achievement (17 + 17 = 34 credits)		Second Semester	
Course Alpha/No.	Course Title	Credits	Currently Online
ENG 100	Composition I (FW)	3	✓
BUSN 171	Introduction to Medical Records	3	
BUSN 106	Introduction to Medical Coding	3	
BIOL 130	Anatomy and Physiology (DB)	4	✓
BIOL 130L	Anatomy and Physiology Lab	1	
MGT 120	Principles of Management	3	✓
<b>Job Opportunities</b> Registration Supervisor, Patient Access Supervisor, Insurance Coordinator (entry level)			
<b>National Certification</b> National Association of Healthcare Access Management (NAHAM); Certified Healthcare Access Manager (CHAM)			



				Third Semester	
Course Alpha/No.	Course Title		Credits	Currently Online	
ECON 130 or 131	Microeconomics or Macroeconomics ( <i>Social Science course</i> )	(DS)	3	✓	
BUSN 108*	Introduction to Diagnosis Coding**		3		
BUSN 109*	Introduction to Procedure Coding**		3		
BUSN 175*	Disease Pathology and Pharmacology ( <i>cross list with Math &amp; Science Division</i> )		3		
MGT 124	Human Resources Management		3	✓	
<b>Job Opportunities</b> Billing Clerk, Billing Technologist, Insurance Coordinator, Payment Coordinator, Coder Trainee, Coding Specialist (entry level)					
<b>National Certifications</b> American Medical Billing Association (AMBA); Certified Medical Reimbursement Specialist (CMRS) American Health Information Management Association (AHIMA); Certified Coding Associate (CCA)					

				Fourth Semester	
Course Alpha/No.	Course Title		Credits	Currently Online	
<b>Associate in Science</b> (17 + 17 + 15 + 15 = 64 credits)					
BUSN 137	Computerized Databases—MS® Access		1		
BUSN 176*	Health Statistics ( <i>cross list with Math &amp; Science Division</i> )		3		
BUSN 192	Business Practicum (160 hours minimum)		2		
BUSN 208*	Advanced Diagnosis Coding**		3		
BUSN 209*	Advanced Procedure Coding**		3		
HWST 107	Hawai'i: Center of the Pacific ( <i>Arts &amp; Humanities elective</i> )	(DH/HAP)	3	✓	
<b>Job Opportunities</b> Admissions Clerk, Cancer Registrar, Coder, HIM Section Supervisor, HIM Technologist, Patient Access Supervisor, Privacy Officer, Release of Information Technologist					
<b>National Certification</b> American Health Information Management Association (AHIMA); Registered Health Information Technology (RHIT)					

**Proposed HIT Program of Study**

Certificate/Degree	Credits
Certificate of Completion	17
Certificate of Achievement	17 + 17 = 34
Associate in Science	17 + 17 + 15 + 15 = 64

Curriculum Draft 1 (8/5/11); Draft 2 (8/12/11-Presented at UHCC meeting with HawCC, KapCC, and LeeCC representatives); Draft 3 (8/20/11); Draft 4 (8/29/11); Draft 5 (9/6/11); Draft 6 (9/30/11); Draft 6.1 (11/14/11); Draft 7 (3/1/12)

**Key**

- \* Proposed course alpha/number (BTEC PCC approved)
- \*\*Certified instructor must teach course
- Current Leeward CC HIT Certificate of Completion credit courses (Removed ICS 113, BUSN 105)
- Current Office of Continuing Education and Workforce Development (OCEWD) courses; will submit courses through the Leeward CC curriculum process for credit courses
- Current Leeward CC credit courses
- New Leeward CC credit course



## APPENDIX B – CAHIIM Associate Degree Standards

The Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) - Associate Degree 2012 Standards and Interpretations for Accreditation of Associate Degree Programs in Health Information Management

[[http://www.cahiim.org/Files-Standards/2012\\_HIM\\_Assoc\\_Stndrds\\_elec.pdf](http://www.cahiim.org/Files-Standards/2012_HIM_Assoc_Stndrds_elec.pdf)]

2011 AHIMA Curriculum Competencies and Knowledge Clusters – Health Information Management Associate Degree. Approved by AHIMA Education Strategy Committee.

[[http://ahima.org/schools/FacResources/AHIMACurriculumMapAS080811\\_SO.pdf](http://ahima.org/schools/FacResources/AHIMACurriculumMapAS080811_SO.pdf)]

<b>HIM Associate Degree Entry-Level Competencies (Student Learning Outcomes)</b>	<b>Knowledge Clusters (Curricular Components)</b>
<p><b>I. Domain: Health Data Management</b></p> <p><b>I.A. Subdomain: Health Data Structure, Content, and Standards</b></p> <ol style="list-style-type: none"> <li>1. Collect and maintain health data (such as data elements, data sets, and databases).</li> <li>2. Conduct analysis to ensure that documentation in the health record supports the diagnosis and reflects the patient's progress, clinical findings, and discharge status.</li> <li>3. Apply policies and procedures to ensure the accuracy of health data.</li> <li>4. Verify timeliness, completeness, accuracy, and appropriateness of data and data sources for patient care, management, billing reports, registries, and/or databases.</li> </ol>	<p><b>Health Data Structure, Content, and Standards</b></p> <ul style="list-style-type: none"> <li>• Data versus information (Analyzing, 4)</li> <li>• Health information media (such as paper, computer, web-based) (Analyzing, 4)</li> <li>• Structure and use of health information (individual, comparative, aggregate) (Analyzing, 4)</li> <li>• Health record data collection tools (forms, screens, etc.) (Analyzing, 4)</li> <li>• Data sources (primary/secondary) (Analyzing, 4)</li> <li>• Data storage and retrieval (Analyzing, 4)</li> <li>• Healthcare data sets (such as OASIS, HEDIS, DEEDS, UHDDS) (Understanding, 2)</li> </ul>

I.B. Subdomain: Healthcare Information Requirements and Standards	Healthcare Information Requirements and Standards
<ol style="list-style-type: none"> <li>1. Monitor and apply organization-wide health record documentation guidelines.</li> <li>2. Apply policies and procedures to ensure organizational compliance with regulations and standards.</li> <li>3. Maintain the accuracy and completeness of the patient record as defined by organizational policy and external regulations and standards.</li> <li>4. Assist in preparing the organization for accreditation, licensing, and/or certification surveys.</li> </ol>	<ul style="list-style-type: none"> <li>• Type and content of health record (paper, electronic, computer-based, e-health-personal, web-based) (Evaluating, 5)</li> <li>• Health record documentation requirements (such as accreditation, certification, licensure) (Evaluating, 5)</li> <li>• Data quality and integrity (Analyzing, 4)</li> </ul>
<p><b>I.C. Subdomain: Clinical Classification Systems</b></p> <ol style="list-style-type: none"> <li>1. Use and maintain electronic applications and work processes to support clinical classification and coding.</li> <li>2. Apply diagnosis/procedure codes according to current nomenclature.</li> <li>3. Ensure accuracy of diagnostic/procedural groupings such as DRG, MSDRG, APC, and so on.</li> <li>4. Adhere to current regulations and established guidelines in code assignment.</li> <li>5. Validate coding accuracy using clinical information found in the health record.</li> <li>6. Use and maintain applications and processes to support other clinical classification and nomenclature systems (ex. DSM IV, SNOMED-CT).</li> <li>7. Resolve discrepancies between coded data and supporting documentation.</li> </ol>	<p><b>Clinical Classification Systems</b></p> <ul style="list-style-type: none"> <li>• Classifications, taxonomies, nomenclatures, terminologies, and clinical vocabularies such as SNOMED-CT (Analyzing, 4)</li> <li>• Principles and applications of coding systems (such as ICD, CPT, DSM) (Evaluating, 5)</li> <li>• Diagnostic and procedural groupings (such as DRG, APC, RUGs) (Evaluating, 5)</li> <li>• Case mix analysis and indexes (Analyzing, 4)</li> <li>• Severity of illness systems (Analyzing, 4)</li> <li>• Coding compliance strategies, auditing, and reporting (such as CCI, plans) (Evaluating, 5)</li> <li>• Coding quality monitors and reporting (Evaluating, 5)</li> </ul>

<p><b>I.D. Subdomain: Reimbursement Methodologies</b></p> <ol style="list-style-type: none"> <li>1. Apply policies and procedures for the use of clinical data required in reimbursement and prospective payment systems (PPS) in healthcare delivery.</li> <li>2. Apply policies and procedures to comply with the changing regulations among various payment systems for healthcare services such as Medicare, Medicaid, managed care, and so forth. (NEW)</li> <li>3. Support accurate billing through coding, chargemaster, claims management, and bill reconciliation processes.</li> <li>4. Use established guidelines to comply with reimbursement and reporting requirements such as the National Correct Coding Initiative.</li> <li>5. Compile patient data and perform data quality reviews to validate code assignment and compliance with reporting requirements, such as outpatient prospective payment systems.</li> <li>6. Ensure accuracy of diagnostic/procedural groupings such as DRG, APC, and so on. (NEW)</li> </ol>	<p><b>Reimbursement Methodologies</b></p> <ul style="list-style-type: none"> <li>• Commercial, managed care and federal insurance plans (Analyzing, 4)</li> <li>• Compliance strategies and reporting (Applying, 3)</li> <li>• Payment methodologies and systems (such as capitation, prospective payment systems, RBRVS) (Analyzing, 4)</li> <li>• Billing processes and procedures (such as claims, EOB, ABN, electronic data interchange) (Analyzing, 4)</li> <li>• Chargemaster maintenance (Evaluating, 5)</li> <li>• Regulatory guidelines (NCDs and QIOs) (3)</li> <li>• Reimbursement monitoring and reporting (Evaluating, 5)</li> </ul>
<p><b>II. Domain: Health Statistics, Biomedical Research, and Quality Management</b></p> <p><b>II.A. Subdomain: Healthcare Statistics and Research</b></p> <ol style="list-style-type: none"> <li>1. Collect, maintain, and report data for clinical indices/databases/registries to meet specific organization needs such as medical research and disease registries.</li> </ol>	<p><b>Healthcare Statistics and Research</b></p> <ul style="list-style-type: none"> <li>• Indices, databases, and registries (Analyzing, 4)</li> <li>• Vital statistics (Evaluating, 5)</li> <li>• Healthcare statistics (Evaluating, 5)</li> <li>• Descriptive statistics (such as means, frequencies, ranges,</li> </ul>
<ol style="list-style-type: none"> <li>2. Collect, organize, and present data for quality management, utilization management, risk management, and other related studies.</li> <li>3. Comprehend basic descriptive, institutional, and healthcare vital statistics.</li> </ol>	<ul style="list-style-type: none"> <li>percentiles, standard deviations) (Understanding, 2)</li> <li>• Statistical applications with health care data (Applying, 3)</li> <li>• Data selection, interpretation, and presentation (Evaluating, 5)</li> <li>• Knowledge-based research techniques (such as library, MEDLINE, web-based)(Evaluating, 5)</li> </ul>


<p><b>II. Domain: Health Statistics, Biomedical Research, and Quality Management</b></p> <p><b>II.B. Subdomain: Quality Management and Performance Improvement</b></p> <ol style="list-style-type: none"> <li>1. Abstract and report data for facility-wide quality management and performance improvement programs.</li> <li>2. Analyze clinical data to identify trends that demonstrate quality, safety, and effectiveness of healthcare.</li> </ol>	<p><b>Quality Management and Performance Improvement</b></p> <ul style="list-style-type: none"> <li>• Quality assessment and improvement (such as process, collection tools, data analysis, reporting techniques) (Applying, 3)</li> <li>• Utilization management, risk management, and case management (Understanding, 2)</li> <li>• Regulatory quality monitoring requirements (Applying, 3)</li> <li>• Outcomes measures and monitoring (Applying, 3)</li> </ul>
<p><b>III. Domain: Health Services Organization and Delivery</b></p>	
<p><b>III.A. Subdomain: Healthcare Delivery Systems</b></p> <ol style="list-style-type: none"> <li>1. Apply current laws, accreditation, licensure, and certification standards related to health information initiatives from the national, state, local, and facility levels.</li> <li>2. Differentiate the roles of various providers and disciplines throughout the continuum of healthcare and respond to their information needs.</li> </ol>	<p><b>Healthcare Delivery Systems</b></p> <ul style="list-style-type: none"> <li>• Organization of healthcare delivery in the United States (Analyzing, 4)</li> <li>• Healthcare organizations structure and operation (Analyzing, 4)</li> <li>• External standards, regulations, and initiatives (such as licensure, certification, accreditation, HIPAA, ARRA) (Analyzing, 4)</li> <li>• Healthcare providers and disciplines (Analyzing, 4)</li> </ul>
<p><b>III.B. Subdomain: Healthcare Privacy, Confidentiality, Legal, and Ethical Issues</b></p> <ol style="list-style-type: none"> <li>1. Adhere to the legal and regulatory requirements related to the health information infrastructure.</li> <li>2. Apply policies and procedures for access and disclosure of personal health information.</li> <li>3. Release patient-specific data to authorized users.</li> <li>4. Maintain user access logs/systems to track access to and disclosure of identifiable patient data.</li> <li>5. Apply and promote ethical standards of practice.</li> </ol>	<p><b>Healthcare Privacy, Confidentiality, Legal, and Ethical Issues</b></p> <ul style="list-style-type: none"> <li>• Legislative and regulatory processes (Applying, 3)</li> <li>• Legal terminology (Applying, 3)</li> <li>• Health information/record laws and regulations (such as retention, patient rights/advocacy, advanced directives, privacy) (Evaluating, 5)</li> <li>• Confidentiality, privacy, and security policies, procedures, and monitoring (Evaluating, 5)</li> <li>• Release of information policies and procedures (Evaluating, 5)</li> <li>• Professional and practice-related ethical issues (Evaluating, 5)</li> </ul>

<p><b>IV. Domain: Information Technology &amp; Systems</b></p> <p><b>IV.A. Subdomain: Information and Communication Technologies</b></p> <ol style="list-style-type: none"> <li>1. Use technology, including hardware and software, to ensure data collection, storage, analysis, and reporting of information.</li> <li>2. Use common software applications such as spreadsheets, databases, word processing, graphics, presentation, e-mail, and so on in the execution of work processes.</li> <li>3. Use specialized software in the completion of HIM processes such as record tracking, release of information, coding, grouping, registries, billing, quality improvement, and imaging.</li> <li>4. Apply policies and procedures to the use of networks, including intranet and Internet applications, to facilitate the electronic health record (EHR), personal health record (PHR), public health, and other administrative applications.</li> <li>5. Participate in the planning, design, selection, implementation, integration, testing, evaluation, and support for EHRs. <b>(NEW)</b></li> </ol>	<p><b>Information Technology &amp; Systems</b></p> <ul style="list-style-type: none"> <li>• Computer concepts (hardware components, systems architectures, operating systems and languages, and software packages and tools) (Applying, 3)</li> <li>• Communication and internet technologies (such as networks, intranet, standards) (Applying, 3)</li> <li>• Common software applications (such as word processing, spreadsheet, database, graphics) (Applying, 3)</li> <li>• Health information systems (such as administrative, patient registration, ADT, EHR, PHR, lab, radiology, pharmacy) (Analyzing, 4)</li> <li>• Voice recognition technology (Applying, 3)</li> <li>• Health information specialty systems (such as ROI, coding, registries) (Evaluating, 5)</li> <li>• Application of systems and policies to health information systems and functions and health care data requests (Evaluating, 5)</li> <li>• System acquisition and evaluation (Applying, 3)</li> </ul>
<p><b>IV.B. Subdomain: Data, Information, and File Structures</b></p>	
<ol style="list-style-type: none"> <li>1. Apply knowledge of database architecture and design (such as data dictionary) to meet departmental needs.</li> </ol>	
<p><b>IV.C. Subdomain: Data Storage and Retrieval</b></p> <ol style="list-style-type: none"> <li>1. Use appropriate electronic or imaging technology for data/record storage.</li> <li>2. Query and generate reports to facilitate information retrieval using appropriate software.</li> <li>3. Apply retention and destruction policies for health information. <b>(NEW)</b></li> </ol>	<p><b>Date Storage and Retrieval</b></p> <ul style="list-style-type: none"> <li>• Document archival, retrieval, and imaging systems (Analyzing, 4)</li> <li>• Maintenance and monitoring of data storage systems (Analyzing, 4)</li> </ul>

<p><b>IV.D. Subdomain: Data Security</b></p> <ol style="list-style-type: none"> <li>1. Apply confidentiality and security measures to protect electronic health information.</li> <li>2. Protect data integrity and validity using software or hardware technology.</li> <li>3. Apply departmental and organizational data and information system security policies.</li> <li>4. Use and summarize data compiled from audit trails and data quality monitoring programs.</li> </ol>	<p><b>Data Security and Healthcare Information Systems</b></p> <ul style="list-style-type: none"> <li>• System architecture and design (Applying, 3)</li> <li>• Screen design (Analyzing, 4)</li> <li>• Data retrieval and maintenance (Analyzing, 4)</li> <li>• Data security concepts (Applying, 3)</li> <li>• Data integrity concepts (Analyzing, 4)</li> <li>• Data integrity and security processes and monitoring (Applying, 3)</li> </ul>
<p><b>V. Domain: Organizational Resources</b></p> <p><b>V.A. Subdomain: Human Resources</b></p>	<p><b>Organizational Resources</b></p> <ul style="list-style-type: none"> <li>• Roles and functions of teams and committees (Evaluating, 5)</li> </ul>
<ol style="list-style-type: none"> <li>1. Apply the fundamentals of team leadership.</li> <li>2. Participate in and work in teams and committees.</li> <li>3. Conduct orientation and training programs.</li> <li>4. Monitor and report staffing levels and productivity standards for health information functions.</li> <li>5. Use tools and techniques to monitor, report, and improve processes.</li> <li>6. Comply with local, state, and federal labor regulations. <b>(NEW)</b></li> </ol>	<ul style="list-style-type: none"> <li>• Teams/consensus building and committees (Analyzing, 4)</li> <li>• Communication and interpersonal skills (Evaluating, 5)</li> <li>• Team leadership concepts and techniques (Analyzing, 4)</li> <li>• Orientation and training (such as content, delivery, media) (Evaluating, 5)</li> <li>• Workflow and process monitors (Analyzing, 4)</li> </ul>
<p><b>V.B. Subdomain: Financial and Resource Management</b></p> <ol style="list-style-type: none"> <li>1. Make recommendations for items to include in budgets and contracts.</li> <li>2. Monitor and order supplies needed for work processes.</li> <li>3. Monitor coding and revenue cycle processes.</li> <li>4. Recommend cost-saving and efficient means of achieving work processes and goals.</li> <li>5. Contribute to work plans, policies, procedures, and resource requisitions in relation to job functions.</li> </ol>	<p><b>Financial and Resource Management</b></p> <ul style="list-style-type: none"> <li>• Revenue cycle monitors (Analyzing, 4)</li> <li>• Organizational plans and budgets (framework, levels, responsibilities, etc.) (Analyzing, 4)</li> <li>• Resource allocation monitors (Analyzing, 4)</li> </ul>
	<p><b>BIOMEDICAL SCIENCES</b></p> <p>Anatomy (Analyzing, 4)</p> <p>Physiology (Analyzing, 4)</p> <p>Medical Terminology (Analyzing, 4)</p> <p>Pathophysiology (Analyzing, 4)</p> <p>Pharmacotherapy (Analyzing, 4)</p>



## APPENDIX C – Course and Standard Crosswalk

 <b>UNIVERSITY of HAWAII</b> <b>LEeward</b> <b>COMMUNITY COLLEGE</b>		BUS 101, Business Computer Systems	BUSN 110, Records and Information Management	BUSN 102, Introduction to Health Information Technology	HITH 110, Medical Terminology	BUSN 115, Reimbursement Methodologies	MGT 121, Customer Service	ENG 100, Composition I	BUSN 171, Introduction to Medical Records	BUSN 109, Introduction to Medical Coding	BIO 100, Anatomy and Physiology	BIO 130, Anatomy and Physiology Lab	MGT 120, Principles of Management	ECOM 130 or 131, Principles of Microcomputer or Principles of Macromicrocomputers	BUSN 175, Disease Pathology and Pharmacology	BUSN 105, Introduction to Diagnostic Coding	BUSN 109, Introduction to Procedure Coding	BUSN 127, Computerized Databases—MS <sup>®</sup> Access	BUSN 176, Health Statistics	MGT 124, Human Resources Management	BUSN 200, Advanced Diagnostic Coding	BUSN 209, Advanced Procedure Coding	BUSN 102, Business Fractions	HWST 107, Hawaii: Center of the Pacific	
HIM Associate Degree Entry-Level Competencies	Knowledge Clusters (Curricular Components)																								
Domain	Subdomain	Certificate of Completion							Certificate of Achievement						Associate in Science										
I. Health Data Management	A. Health Data Structure, Content, and Standards																								
	B. Biomedical Sciences																								
	C. Healthcare Information Requirements & Standards																								
	D. Clinical Classification Systems																								
	E. Reimbursement Methodologies																								
II. Health Statistics, Biomedical Research & Quality Management	A. Healthcare Statistics and Research																								
	B. Quality Management & Performance Improvement																								
III. Health Services Organization and Delivery	A. Healthcare Delivery Systems																								
	B. Healthcare Privacy, Confidentiality, Legal, and Ethical Issues																								
IV. Information Technology and Systems	A. Information & Communication Technologies Information Technology and Systems																								
	B. Data, Information, and File Structures																								
	C. Data Storage and Retrieval																								
	D. Data Security Data Security & Healthcare Information Systems																								
V. Organizational Resources	A. Human Resources																								
	B. Financial and Resource Management																								
Total Credits = 64		Course Credits		3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	2	3

AHIMA Associate Degree Curriculum Map

Form: AB\_Curriculum\_Map\_Template\_00Nov2011\_rev4\_final\_27March2012/Dno&J Jackson

## APPENDIX D – Index of Terms

AHIMA	American Health Information Management Association
ARRA	American Recovery and Reinvestment Act
CAEL	Council on Adult and Experiential Learning
CHP	Certified in Healthcare Privacy
CCS	Certified Coding Specialist
CAHIIM	Commission of Accreditation for Health Informatics and Information Management Education
DHHS	Department of Health and Human Services
HIM	Health Information Management
HIT	Health information Technology
ICD-10-CM/PCS	International Classification of Diseases, 10th Revision, Clinical Modification and Procedure Coding System
ICD-9-CM	International Classification of Diseases, 9 <sup>th</sup> Revision, Clinical Modification
NHCTEP	Native Hawaiian Career and Technical Education Programs
OCEWD	Office of Continuing Education and Workforce Development
PLA	Prior Learning Assessment
RHIA	Registered Health Information Administrator
RHIT	Registered Health Information Technologist
WCCHC	Waianae Coast Comprehensive Health Center



## **APPENDIX E – Community Support**

1. Letter: Ricardo Custodio, MD, MPH; Director of Training, Waianae Coast Comprehensive Health Center (WCCHC)
2. Letter: Janis Kushimi; Director, Corporate Human Resources/Training & Dev/Recruitment, The Queen's Health Systems
3. Letter: Sue Bias; Director of Human Resources, St. Francis Healthcare System
4. Letter: Monica Leisch, RHIA, CCS; Director of Compliance/HIM Services, Health Cost Solutions (HCS)



**WAIANAE COAST  
COMPREHENSIVE  
HEALTH CENTER**

[www.wcchc.com](http://www.wcchc.com)

To Whom It May Concern,

I am the Director of Development and Training at Waianae Coast Comprehensive Health Center and want to state my support for the program in Health Information Technology being offered by Leeward Community College.

The partnership that Waianae Coast Comprehensive Health Center has with LCC through the development of our Waianae Health Academy has produced trained allied health care workers from within our community.

The need now is for trained personnel in the development and use of electronic medical records, including skills in coding, especially with the changes from ICD-9 to ICD-10. I believe that LCC can meet this need through their HIT Program

If you would like to reach me, I can be contacted at [rcustodio@wcchc.com](mailto:rcustodio@wcchc.com)

Aloha,

A handwritten signature in black ink, appearing to read 'Ricardo C. Custodio', written in a cursive style.

Ricardo C. Custodio, M.D., M.P.H.  
Director of Training

85-260 Farrington Highway, Waianae, Hawaii 96792 - Telephone: (808) 697-3300 - Fax: (808) 697-3687  
Visit our website at: [www.wcchc.com](http://www.wcchc.com)



April 9, 2012

To Whom It May Concern:

This letter serves to document our support of a Health Information Technology program at Leeward Community College (LCC).

The changes that will be brought forth moving from an ICD-9 to ICD-10 coding methodology is massive and we foresee recruitment needs growing based on this initiative. Having candidates that can show competency in this field via a degree or certification will make the learning curve more manageable.

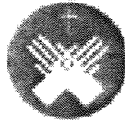
With LCC leading the way, we hope other community colleges will also offer this program in the future.

Please call me at 691-7486 should you have any questions. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'Janis Kushimi', written over a circular stamp or seal.

Janis Kushimi  
Director, Corporate Human Resources/Training & Dev/Recruitment



**St. Francis**

HEALTHCARE SYSTEM OF HAWAII  
A Legacy of Caring for Hawaii's People

April 17, 2012

To Whom It May Concern:

I am the Director of Human Resources for St. Francis Healthcare System and want to state my support for the program in Health Information Technology being offered by Leeward Community College.

There is definite need for trained personnel in the development and use of electronic medical records, including skills in coding. As regulations continue to develop, this need will only become more critical. I believe that LCC can help meet this need through their HIT Program and strongly you give it serious consideration.

If you have any questions, you may contact me at (808) 5478020 or by email at [sbias@stfrancishawaii.org](mailto:sbias@stfrancishawaii.org).

Sincerely,

A handwritten signature in cursive script, appearing to read "Sue Bias".

Sue Bias  
Director of Human Resources



March 30, 2012

To Whom It May Concern,

I am Director of Compliance / HIM Services of Healthcare Cost Solutions and as such wanted to state my support for the program in Health Information Technology that specializes in Coding. There is a high need for health information technologists and obtaining qualified coders in Hawaii is perhaps the most difficult.

This skill-set represents a shortage that we must fill on the advent of ICD-10-CM and ICD-10-PCS conversion as well as other ARRA HiTech initiatives that will increase the need.

The fact that Leeward Community College will offer this education online is vital to the state and federal government. This is important because students will qualify for in-state tuition and can take classes through distance education options/ online and for the federal government because enlisted soldiers or veterans and their spouses can pursue their education while deployed or from the outer islands. In the event of a permanent change of location the military students won't have to transfer classes – they can continue from any location. Another important point is that this educational opportunity will reach the native Hawaiian population and other rural areas with a high pay / high need education. Finally, this education is perfect for working adults who need to attend classes on their own time.

Sincerely,

*Monica Leisch, RHIA, CCS*

Monica Leisch, RHIA, CCS  
Director of Compliance / HIM Services



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