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# HONOLULU COMMUNITY COLLEGE

## PROGRAM HEALTH INDICATORS

### 2000-2001 PROGRAM REVIEWS

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Auto Body Repair and Painting (ABRP)  
Aeronautics Maintenance Technology (AERO)  
Administration of Justice (AJ)  
Automotive Mechanics Technology (AMT)  
Boat Maintenance Repair (MARMR)  
Carpentry (CARP)  
Commercial Aviation (AVIT)  
Communication Arts (CA)  
Computing, Electronics, and Networking Technology (CENT)  
Cosmetology (COSME)  
Diesel Mechanics (DIESL)  
Drafting Technology (DRAFT)  
Electrical Installation and Maintenance Technology (EIMT)  
Fashion Technology (FT)  
Fire and Environmental Emergency Response (FIRE)

Human Services Program (HSERV), Early Childhood Education Option  
Human Services Program (HSERV), Community Service Option

Occupational and Environmental Safety Management (OESM)  
Refrigeration and Air Conditioning (RAC)  
Sheet Metal and Plastics Technology (SMP)  
Welding Technology (WELD)

## **PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Auto Body Repair and Painting (ABRP)**

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Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

## 2000-2001 PROGRAM HEALTH INDICATORS HONOLULU COMMUNITY COLLEGE

The Auto Body Repair and Painting (ABRP) program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

### **Program Demand/Centrality:**

This ABRP program is consistently in demand and falls above the program satisfactory level.

### **Program Efficiency:**

This program's class fit ratio falls slightly below the satisfactory level. The program received the National Automotive Technicians Education Foundation (NATEF) certification about five years ago. The program is more demanding. With the resignation of a faculty in 1999, a new replacement has not been found despite efforts to find another instructor. This year because of the lack of staff, the current full-time instructor had an overload for the spring 2001 semester.

### **Program Outcomes:**

This program's graduation/opening ratio falls slightly below satisfactory levels.

### **Overall Health Summation:**

With the continued support of the Employment Training Center, the program continues to maintain a satisfactory level. The addition of another ABRP instructor can push the program to higher levels of enrollment and quality.

### **Program: ABRP**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	2.32	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	63%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	38%	41%

## Appendix A

### AUTO BODY REPAIR AND PAINTING (ABRP)

#### Program Description:

The Auto Body Repair and Painting Program is the only such program on the Island of Oahu.

The faculty has designed the curriculum to prepare the students for employment in the AUTO BODY REPAIR and PAINTING industry and related areas. The curriculum used for the program is published by the I-CAR Education Foundation and is based on the National Automotive Technicians Education Foundation (NATEF) Auto body Task List and the National Institute for Automotive Service Excellence (ASE) technician certification standards.

It currently offers a Certificate of Achievement and an Associate in Applied Science Degree. Moreover, the AUTOMOTIVE BODY AND PAINTING ASSOCIATION OF HAWAII supports the program through their involvement with the program's Advisory Committee. Classroom and laboratory work is offered in a modern and well-equipped facility. In the summer of 1997 the program received certification from NATEF in the following areas: Structural Analysis and Damage Repair; Non-Structural Analysis and Damage Repair; Plastics and Adhesives; and Painting and Refinishing. The program is the only NATEF certified program for Auto body repair and painting in the state of Hawaii

Another unique attribute is that the program is integrated and articulated with the Employment Training Center's Auto Body Repair and Painting program. Thus, at-risk high school students as well as adults referred by various social services agencies may participate in the program with the additional counseling and instructional support provided by ETC. The ETC program has more frequent admission points as well as intensive counseling and applied basic skills components.

#### Program goals:

Students completing the program will be prepared for employment in the Auto Body Repair and Painting industry and related areas. The program is the focal point for the industry technician upgrading INTER-INDUSTRY CONFERENCE ON AUTO COLLISION REPAIR (I-CAR) and various manufacturer in-service training.

#### Program History:

The Auto Body Repair and Painting (ABRP) program was established in 1953 with a total of 30 students consisting mainly of World War II and the Korean Conflict veterans. From 1953 to 1978 the program enrollment grew to 110 students. The ABRP program is the only one offered by the Community College System on Oahu, the area of major population and employment opportunities.

The major objectives of the program include providing vocational training for entry-level positions in industry, developing various degrees of proficiency in Auto body repair and painting and meeting the needs of the employment market.

Typically, the ABRP students can be characterized as male, approximately 60% enrolled full time (12 or more credits), pursuing the Associate in Applied Science Degree, and Honolulu residents. The program has proven successful in providing various types of disabled students with entry-level skills.

At one time, the limited number of student workstations impinged upon the attainment of the desired level and intensity of training expected by the program faculty. Capital improvements to renovate and expand the facilities to correct this limitation were implemented in 1989. The program has NATEF (National Automotive Technicians Education Foundation) certification.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements

Students are admitted to the program each year during the fall semester. Program admission is based on a first-qualified, first-accepted basis until the program quota is reached. The program prerequisites are Placement in English 21/51 and in Math 50/53.

General Education Requirements for the A.A.S. degree is listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement

<b>Program Prerequisite:</b>	<b>Certificate of Achievement Credits</b>	<b>Associate in Applied Science Degree Credits</b>
<b>ENG 20B &amp; C &amp; D &amp; E or ESL 11 &amp; 12 &amp; 13 &amp; 17 OR Placement in ENG 21/51 MATH 20B &amp; C &amp; D OR Placement in MATH 50/53</b>		
 <b>First Semester</b>		
ABRP 62      Metal Straightening/Body Filler Techniques	2	2
ABRP 63      Welding and Cutting Techniques	2	2
ABRP 64      Corrosion Repair Techniques	2	2
ABRP 65      MIG Welding	2	2
ABRP 66      Refinishing Safety & Vehicle Preparation	3	3
ABRP 67      Detailing	1	1
PHYS 55      Metallurgy and Plastics		4
 <b>Second Semester</b>		
ABRP 68      Corrosion Protection Principles	1	1
ABRP 69      Color Mixing & Matching	3	3
ABRP 70      Paint Blending Techniques	3	3
ABRP 71      Paint Application Problems	2	2
ABRP 72      Automotive Composite Repairs	3	3
MATH 50      Technical Mathematics I		3
Or MATH 53      Technical-Occupational Math		3/4

		<b>Certificate of Achievement Credits</b>	<b>Associate in Applied Science Degree Credits</b>
<b>Third Semester</b>			
ABRP 73	Collision Prep & Panel Alignment	4	4
ABRP 74	Quarter Panel Replacement Techniques	2	2
ABRP 75	Door Skin Alignment & Replacement	2	2
ABRP 76	Advanced Welding Methods	2	2
ABRP 77	Estimating Vehicle Damage	2	2
ENG 51	Technical Reading		3
ICS 100T	Computer Literacy and Applications (Transportation)		3
Or ICS 100	Computer Literacy and Applications		
Recommended:	ICS 100T		
<b>Fourth Semester</b>			
ABRP 78	Collision Damage Analysis	3	3
ABRP 79	Structural Straightening Techniques	3	3
ABRP 80	Panel Replacement	6	6
SP 151	Personal and Public Speech		3
General Education Requirement * (Group C or D)			3
Minimum Credits Required		48	67/68

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
ABRP 62	22	25
ABRP 63	22	25
ABRP 64	22	25
ABRP 65	21	25
ABRP 66	21	25
ABRP 67	19	25
ABRP 73	14	25
ABRP 74	15	25
ABRP 75	13	25
ABRP 76	14	25
ABRP 77	13	25
ABRP 93V	61	50

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Tadaki, Milton, R., AS, I-CAR Certified, ASE Certified, B.Ed.

#### **Program Advisory Committee:**

Bert Azama, Kaimuki High School  
Alex Cho, AC Marketing  
Scott Furuta, Kamoi Auto Repair  
Gloria Garner, Chuck's Corvette Clinic  
Tim Gruber, Classic Bodyworks  
Carmen Jones, OAK Distributors  
Buster Komori, Buster's Repair  
Fay Kondo, Star Auto Body & Paint Inc.  
Dale Matsumoto, Auto Body Hawaii  
Shinobu Nishikawa, Waipahu High School  
Francis Parsons, Instructor, Kamehameha School  
Gary Skoverski, Bowman Distribution  
Eric Takemoto, Island Concepts  
March Taylor, Auto Body Hawaii  
Joey Torres, J-DT Auto Paint Shop, Advisory Committee Chair  
Walden Zane, Campbell High School

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Aeronautics Maintenance Technology (AERO)**

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Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

## **2000-2001 PROGRAM HEALTH INDICATORS HONOLULU COMMUNITY COLLEGE**

The Aeronautics Maintenance Technology (AERO) program under the Pacific Aerospace Training Center (PATC) demonstrated improvement in all categories including program demand, efficiency, and outcome measures:

### **Program Demand/Centrality:**

Career opportunities in aviation maintenance are in high demand with the expansion of air carrier traffic worldwide and particularly, within the Asia-Pacific area. That demand is reflected by AERO increased enrollment. Continual industry shortage of maintenance technicians is prevalent. Estimates are that 13-14,000 technicians are needed annually while replacements are about 9,000. The average technician age is 40-50 years old. The aviation industry is losing talented technicians to other less strenuous and stressful industries prior to retirement. There is concern that the population pools and quality of entry-level aviation technicians are decreasing. Not only is enrollment decreasing but also, the number of A&P schools is declining.

High demand permitted AERO to commence night courses beginning Fall 2000. Initial enrollment nearly doubled. State residents compose the majority of the enrollments. Mentorship programs with local high schools are envisioned for next year. Enrollment of up to 35 foreign students, as part of a Northwest Airline initiative, is also expected over the next 24 months. Currently 19 Northwest students are enrolled in AERO. All start with an ESL course. Other opportunities within Japan and Asia are being pursued.

### **Program Efficiency:**

AERO is one of the most concentrated and demanding curricula at HCC requiring nearly 1900 hours of in class and laboratory training to meet the Federal Aviation Administration's requirements for an Airframe and Power Plant license. Prerequisites rely on a solid math and technical English comprehension. Generally, instructor time is spent introducing subjects that should have been acquired in high school. Many students find the course very challenging especially while balancing classroom work, studies, job and families. Also several students opt to gain AERO experience then apply for less skilled (non-certified) jobs with the airlines prior to completion.

Although a minor increase in efficiency rating was noted in 2000-2001, course curriculum and presentations need upgrading. The AERO training method and curricula are archaic. Training curricula is based on paper, viewgraph, and manual presentations that must transition to electronic classrooms with computer based training (CBT), electronic manuals, CDs, simulation and distance learning. This will be a goal for 2001-2002.

### **Program Outcomes:**

Associate degree completion rates from AERO increased for the first time in several years. The demanding FAA requirements and instructor expectations will always be challenging for the students. Course demands often cause students who gain AERO experience to apply for less skilled (non-certified) jobs with the airlines prior to completion. The goal is to attain a 50% completion rate within the next curriculum cycle. Current training is student self paced. Subject to the availability of funding several instructional techniques and guides will be implemented to offer closer instructor-student interaction and provide more organization and structure to classroom lectures.

To meet maintenance technicians demands, air carriers will have to consider supporting, adopting, sponsoring, promoting or resourcing aviation schools, and to offering scholarships, internships and apprentice training at HCC. Few airlines recognized this symbiotic relationship. PATC will continue to encourage and seek airline relationship with HCC.

### **Overall Health Summation:**

AERO will always be a challenging and demanding curriculum. The acquisition and implementation of attention getting, dynamic presentations, closer instructor-student interaction, attracting more Asian-Pacific enrollments and obtaining air carrier sponsorship can improve graduation results. The goal is 50% graduations for an AERO cycle ending Spring 2002.

**Program: AERO**

<b>Indices</b>	<b>Minimum Level</b>	<b>Actual Level</b>	<b>Satisfactory Level</b>
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	3.39	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	75%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	20%	41%

## Appendix A

### AERONAUTICS MAINTENANCE TECHNOLOGY (AERO)

#### Program Description:

The Aeronautics Maintenance Technology program is an approved aviation maintenance technician training facility operating under Federal Aviation Administration Air Agency Certificate No. D19T087R with Airframe, Powerplant, and combined Airframe and Powerplant ratings. It is the only such school in the Pacific Basin. Graduates of the program generally are qualified to work in both the general and commercial aviation fields.

The Honolulu Community College Aeronautics program is the only program in the State of Hawaii providing Federal Aviation Regulation Part 147 training for Aviation Maintenance Technicians. It is an Associate in Science degree program consisting of one semester of academic subjects and an FAA approved four-semester curriculum of technical subjects as required by FAR Part 147 to meet the FAR Part 65 experience requirements for Aviation Maintenance Technicians. Along with the curriculum, the facilities, class schedule, procedures, equipment, instructors and teaching methods are all FAA approved. Courses run five days a week, 6.75 hours a day.

#### Program goals:

Upon completion of the Airframe and/or Powerplant curricula, the graduate is eligible to take the Federal written oral and practical exams for certification as an Aviation Maintenance Technician. By a special arrangement with the FAA, HCC AERO is authorized to test our graduate applicants for the written, oral and practical exams and certify the passing applicants as Aviation Maintenance Technicians. As certified technicians, our graduates may be hired by air carriers, air taxi operators, flight schools, corporate operators, Federal, State or local government agencies, manufacturers, aircraft and aircraft component maintenance and overhaul establishments or in related technical fields.

#### Program History:

Honolulu Community College's Aviation Maintenance Technology (AVMAT) Program was initiated in 1949 and was one of the programs in operation at Honolulu Technical School when the technical school was incorporated into the University of Hawaii. After the Community College Act of 1964 went into effect, Honolulu Technical School became Honolulu Community College and the AVMAT Program automatically became part of the community college curriculum. Upon a stop-out in 1987 and a major reorganization in 1988, the program became the HCC Aeronautics Maintenance Technology Program. The present AERO Program offers the only such program of instruction in the entire Pacific Basin.

The objective of the program is to prepare students for certification by the Federal Aviation Administration as licensed airframe and/or powerplant mechanics. Students may also earn an A. S. degree in Aeronautics Maintenance Technology upon completion of the general education requirements.

Full-time faculty members supplemented by a support staff presently staff the AERO program. All instructors and the support staff are fully qualified. The full-time instructors are actively involved in professional activities to insure that their knowledge of their field remains current.

The Aeronautics Maintenance Technology training curriculum is entirely dictated by the FAA under Federal Air Regulation (FAR) 147. The program is subject to periodic inspection and approval by the FAA to maintain its status as a certified program. Such inspections and reviews have to this date been favorable.

The facilities for the program are located at the airport and are adequate to meet current needs. A new facility was opened in 1995. Present levels of funding for equipment and supplies are the result of action of the Legislature in support of the program and are adequate to meet needs. Both facilities and equipment continue to meet FAA requirements.

The advisory committee for the program is responsible for assisting the program to follow FAA and industry guidelines. The program is considered by the FAA to be following the Federal Aviation Regulation guidelines. All modifications to the program must meet prior FAA approval before implementation.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Students are admitted to the program every semester, a day and a night class in the fall and a day class in the spring. Program admission is based on completion of the prerequisites and on a first qualified, first-accepted basis until the FAR determined class quota is reached.

The minimum qualifications for college admission are:

- 18 years of age or older, and
- High school diploma or GED if under 18.

In addition, the program admission requirements are:

- Program eligibility as determined by MATH and ENGLISH placement. PHYS 51V and ICS 100T are recommended prior to taking AERO 130-131.

#### Program Prerequisites:

**AERO 100**

**ENG 20B and 20C and 20D and 20E or ESL 11 and 12 and 14 and 15 OR Placement in**

**ENG 22/60**

**MATH 50 or 53 OR Placement in MATH 27**

**Recommended preparation before enrolling in**

**the AERO 130-137 series: PHYS 51V AND**

**ICS 100T**

		<b>Certificate Of Achievement Credits</b>		<b>Associate In Science Degree Credits</b>
AERO 130	General Aircraft Maintenance I	7		7
AERO 131	Advanced Gen. Aircraft Maint. II	7		7
AERO 132	Powerplant Maintenance I	7		7
AERO 133	Airframe Maintenance I	7		7
AERO 134	Powerplant Maintenance II	7		7
AERO 135	Airframe Maintenance II	7		7
AERO 136	Powerplant Maintenance III	7		7
AERO 137	Airframe Maintenance III	7		7
AERO 100	Introduction to Aviation			3
ENG 120	Advanced Technical Writing			3
SP 151	Personal and Public Speech			3
General Education Requirement* (Group C and D) Recommended: IS 100, PSY 100 or 180				6
MATH 135	Pre-Calculus: Elementary Functions			3
PHYS 151-151L	College Physics/ College Physics Laboratory			4
ICS 100T	Computing Literacy and Applications ((Transportation)			3
Or ICS 100	Computing Literacy and Applications			
Minimum Credits Required		56		81

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
AERO 100	28	30
AERO 130	22	22
AERO 130	21	28
AERO 131	19	23
AERO 131	22	25
AERO 132	30	25
AERO 133	28	25
AERO 134	6	25
AERO 135	9	25
AERO 136	11	25
AERO 137	12	25
AERO 93V	82	75

## Appendix C

### Program Faculty and Advisory Committee

#### Program Faculty:

Isaacson, Brian J.	A&P Certified
Evelyn Lockwood	A&P Certified, A.S.
Miyamoto, Own	M.S. Civil Engineer
Rothe, Marion, W.	A&P Certified, A.S., B.S.
Sullivan, Kenneth, R.	A&P Certified
Takamine, Robert J. M.	A&P Certified

#### Program Advisory Committee:

Mark Brommer, Maintenance Supervisor, United Airlines  
Scott Cochran, Manager, Aviation Turbine Overhaul Inc.  
Jeannie Davis, Manager, Federal Avionics  
Larry Ignacio, Maintenance Supervisor, United Airlines  
Jesse Ikei, Local Committee Chair, UAL -HNLGQ  
Michael Losey, Boeing Commercial Airlines  
W. Kawehioakaka Lum, Maintenance Supervisor, Aloha Airlines  
Fred Medina, Director Maintenance Support, Hawaiian Airlines  
Owen Miyamoto, Airport Administrator  
Bobby Richey, Director of Maintenance, Papillon Helicopters  
Gene Rodriques, Director of Maintenance, Aloha Airlines  
Frank Young, President, Gold Wings Inc.  
Larry Zimmerman, Total Quality Administrator, Aloha Airlines

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Administration of Justice (AJ)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The AJ program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program demand indicator falls above the group minimum level.

**Program Efficiency:**

This program's class fit ratio fall above satisfactory levels.

**Program Outcomes:**

This program's graduation/openings ratio falls above satisfactory levels.

**Overall Health Summation:**

Graduation/openings ratio is above satisfactory. In an effort to increase the number of majors, survey and additional recruitment activities are being conducted.

**Program: AJ**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	3.87	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	71%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	57%	41%

## Appendix A

### ADMINISTRATION OF JUSTICE (AJ)

#### Program Description:

The Administration of Justice program at HCC is a four-semester program, which prepares students for entry into the Administration of Justice field, including law enforcement, courts, corrections and private security. Students completing the program will earn an Associate of Applied Science degree. A student at HCC, who completed 12 units of AJ work, may receive up to 12 additional units for completing basic recruit training for police or corrections as required by government agencies.

The program provides job preparation and in-service enhancement for the following occupations, police officer, deputy sheriff, corrections officer, security officer, and a variety of occupations in several state and federal law enforcement agencies. (See following Appendix D for additional information.)

Cost for textbooks are approximately \$200 per semester.

#### Program Goals:

This program is designed to prepare the student academically for entry into the Administration of Justice field; i.e., law enforcement, courts, corrections or private security. Courses are also provided to meet the training needs of the in-service professional.

A student at Honolulu Community College, who completes six (6) units of Administration of Justice college work, may receive up to twelve (12) additional Administration of Justice credits for completing basic recruit training for law enforcement or corrections as required by government agencies.

Thirty (30) units in Administration of Justice courses including the required core courses are needed to satisfy the major course requirements.

#### Program History:

The Administration of Justice (AJ) Program at Honolulu Community College (HCC) began in 1967 as a statewide program in Police Science.

The program, initially targeted at police officers, was formed in response to the adoption of minimal educational hiring and promotion standards by police departments in the state.

In 1986, the program was renamed Administration of Justice reflecting the broader objective of providing a more comprehensive program to include corrections, private security and the courts.

The AJ Program was last overhauled in 1999 to achieve statewide uniformity in course numbering, description and content. The curriculum at HCC is thoroughly modernized to reflect current technology and terminology.

The AJ Program at HCC currently provides entry level and continuing education to over 160 majors in various major career fields.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Students may enter the program at either the fall or spring semester.

**Program Prerequisite: "C" or higher in ENG 22 or in 60 OR Placement in ENG 100**

**Associate in Applied  
Science Degree  
Credits**

**First Semester**

AJ 101	Introduction to the Administration of Justice	3
AJ 138	Criminal Justice System Reports & Communications	3
	Administration of Justice Elective	3
General Education Requirements*		3
Electives**		3

**Second Semester**

AJ 200	Procedures in the Hawaii Justice System	3
	Administration of Justice Elective	6
General Education Requirements*		3
Electives**		3

**Third Semester**

AJ 221	Criminal Law	3
	Administration of Justice Elective	3
General Education Requirements*		3
Electives**		6

**Fourth Semester**

AJ 224	Rules of Evidence	3
	Administration of Justice Elective	3
General Education Requirements*		6
Electives**		3

Minimum Credits Required	60
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**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
AJ 101	31	35
AJ 101	12	35
AJ 103	33	35
AJ 104	22	35
AJ 138	30	30
AJ 193V	8	75
AJ 200	34	35
AJ 210	17	35
AJ 221	35	35
AJ 224	30	35
AJ 230	17	25
AJ 234	17	35

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Vericker, Robert MA, Assistant Professor

#### **Program Advisory Committee**

Eugene Uemura, Assistant Chief of Police, Honolulu Police Department

Joe W. Booker, Jr., Warden, Federal Bureau of Prisons, Honolulu

Mel Decosta, Director of Security, Kahala Mall Shopping Center

Gary Dias, Director of Security, The Queen's Medical Center

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Automotive Mechanics Technology (AMT)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The Automotive Mechanics Technology (AMT) program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

The AMT program is consistently in demand and falls above the group satisfactory level.

**Program Efficiency:**

This program's class fit ratio decreased slightly from last year. But the efficiency indicator level is at a satisfactory level.

**Program Outcomes:**

This program's graduation/opening ratio falls high above satisfactory level.

**Overall Health Summation:**

This is a strong and healthy program. Overall, the program is doing well but will be challenged in the future as the wait list diminishes.

**Program: AMT**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	4.04	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	71%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	60%	41%

## Appendix A

### AUTOMOTIVE MECHANICS TECHNOLOGY (AMT)

#### Program Description:

The Automotive Mechanics Technology (AMT) program at HCC is a five-semester program, which prepares students for employment as automotive technicians. Students completing the program may earn a certificate of achievement or an associate in applied science degree. The program received certification from the National Automotive Technicians Education Foundation (NATEF) in 1993 and is a master certified program meaning it is certified in all eight ASE areas: engine repair, automatic transmission and transaxle, manual drive train and axles, suspension and steering, brakes, electrical/electronics systems, heating and air conditioning, and engine performance.

#### Program goals

The competencies the student is expected to achieve in the program are based on the tasks described by NATEF. Students who successfully complete the program will receive training in all of the eight areas described by NATEF: Automatic Transmission/Transaxle, Brakes, Electrical Systems, Engine Performance, Engine Repair, Heating & Air Conditioning, Manual Drive Train & Axles, and Suspension & Steering.

#### Program History:

The AMT program is one of the original programs offered by the Territorial Trade School (established 1920), antecedent to Honolulu Community College. Only selected courses in auto shop were offered.

From the initial program in 1920 with a handful of students and certain selected auto shop courses, the program has grown into a comprehensive five semester Certificate of Achievement and Associate in Applied Science degree program with an enrollment of 150 students (Fall 1998). An increase in enrollment in 1981 to 300 students resulted from the move to a new AMT facility on the off campus (8-acre) site.

The major objectives of the AMT program include developing degrees of proficiencies that will allow the student to be employed by the automotive repair industry, providing education and training for avocational students, and providing in-service training for employed automotive mechanics.

Difficulties are encountered in obtaining accurate and substantial outcome data. Heavy reliance is placed on faculty contacts with former students to determine student employment rates. Contributing to the difficulty is the unknown number of graduates/program completers who have only vocational interests in automotive mechanics.

The AMT program at Honolulu Community College produces the lowest Cost/SCH among the other Community Colleges offering the program.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Any U.S. high school graduate or any person 18 years or over who can profit from the instruction offered is eligible for admission to the College, subject to the availability of resources. Program prerequisites are a valid driver's license and placement in English 22/60 and in Math 25 or 55. The physical requirements of the program include the eye-hand coordination necessary to make precision repairs and to avoid unnecessary material losses and personal injury.

<b>Program Prerequisites: Valid driver's license1 ENG 20B &amp; C &amp; D&amp; E or ESL 11 &amp; 12 &amp; 13 &amp; 17 OR Placement in ENG 22/60, "C" IN MATH 24 OR IN 50 or in 53 OR Placement in MATH 25 or 55</b>	<b>Certificate of Attendance</b>	<b>Associate in Applied Science Degree Credits</b>
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(If the MATH program prerequisite is met by Placement Test scores, credit in MATH 50 or 53 (53 is recommended) or appropriate substitute is needed to meet the General Education Requirement for the A.A.S. degree.)

#### First Semester

AMT 20	Introduction to Automotive Mechanics	(2)	2
AMT 53	Brakes	(5)	5
AMT 55	Suspension and Steering	(5)	5
PHYS 56	Basic Electrical Theory and Lab		4

1Driver's license must remain valid throughout the time the student is in the program.

#### Second Semester

AMT 46	Powertrain and Manual Transmissions		5
AMT 50	Automatic Transmissions/Transaxles		7
ICS 100 T	Computing Literacy and Applications (Transportation)		3
Or ICS 100	Computing Literacy and Applications		
Recommended: ICS 100T			
WELD 16	Welding for AMT Majors		1

#### Third Semester

AMT 30	Engines		8
AMT 40	Electrical Systems I		4
General Education Requirement (SP 20 or 151 or ENG 60)			3

#### Fourth Semester

AMT 42	Electrical Systems II		8
AMT 43	Air Conditioning		4
General Education Requirement* (Group C or D. Rec: PSY 180)			3
Acceptable Courses: CA 100, 101, IS 100, ECON 120, 130, 131, 211, PSY 100, 180, PHIL 101, 120 (Rec: PSY 180)			

#### Fifth Semester

AMT 60	Engine Performance		12
Coop 93 V	Cooperative Education		1-4

Minimum Credits Required 79-82

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the A.A.S. degree.

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
AMT 20	19	22
AMT 30	14	24
AMT 40	15	24
AMT 42	11	24
AMT 43	11	24
AMT 46	16	24
AMT 50	15	24
AMT 53	19	22
AMT 55	20	22
AMT 67	14	24
AMT 93V	33	75

## Appendix C

### Program Faculty and Advisory Commit

#### Program Faculty:

Allen, Paul	State Certified, CC, A.S., A.S.E. Certified Master Technician
Nitta, Ivan	ASE Certified Licensed Master Technician
Ohta, Craig, J.Y.	State Certified, A.S.E. Certified Master Technician, GM Oldsmobile Certified Master Tech, Detroit Diesel Certified, GM Certified Instructor, A.S.
Shimabukuro, Bert	State Certified, A.S.E. Certified (Folly Released as Division Chair)
Talbo, Gordon	ASE Certified Master Automotive Technician
Yamashiro, Clifford, T.	A.S.E. Certified Master Technician

#### Program Advisory Committee:

Bert Azama, Instructor, Kaimuki High School  
 Bob Cahn, Owner, Car Doc  
 Marcos Erickson, Technician, Cutter Mitsubishi  
 Bobby Fukao, Owner, Snap On Tools  
 Keith George, Service Manager, Theo Davies EuroMotors, Ltd.  
 Gary Gibo, Foreman, Honolulu Ford  
 Eugene Harada, Vice President, Director of Service, Toyota Hawaii  
 Scott Hogle, District Manager, Service & Parts Division, Chrysler Motors Corp.  
 Kenneth Ige, Shop Foreman, Service Motors  
 Wally Ikeda, Assistant Service Manager, Schuman Carriage  
 Dan Kawamoto, Assistant Service Manger, Cutter Dodge  
 Alvin Kubo, Owner, Al's Auto Machine  
 Skip Miller, Service Manager, Cutter Ford, Inc.  
 Conrad Nikaido, Technician, Cutter Ford  
 Toshio Okamura, Owner, Aiea Shell  
 Roy T. Ozaki, Owner, Kalihi Automotive Center & Towing  
 Francis Parsons, Instructor, Kamehameha School  
 Owen Phillips, Jr., Executive Vice-President, Pflueger Automobiles, Inc.  
 Neal Tanaka, Technical Training Manager, Toyota Hawai'i  
 Clayton Uza, Parts & Service Manager, Nissan Motor Corp.

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Commercial Aviation (AVIT)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

## **2000-2001 PROGRAM HEALTH INDICATORS HONOLULU COMMUNITY COLLEGE**

The Commercial Aviation Program (AVIT) program part of the Pacific Aerospace Training Center (PATC) has demonstrated positive or balanced indicators with regard to program demand, efficiency, and outcome measures:

### **Program Demand/Centrality:**

A worldwide shortage of qualified and experienced commercial pilots exists. With the decline in a military pilot pool, aging airline pilots and air carrier expansion. Commercial airline pilots are expected to be a high demand technical career for several years. Although expectations and interest among potential students is high; medical qualifications, aptitude, determination and cost limit enrollment and program continuation. A primary deterrent to enrollment and continuation beyond initial AVIT 102, private pilot training or first semester is cost. Unless a student has sufficient funds (\$30,000) to complete the entire curriculum there will be a decrease enrollment for advanced courses.

PATC must attract enrollments through an ab initio program with an air carrier or an Asia-Pacific aviation client. Relocation to Kalaeloa Airfield provides an opportunity to expand while offering a dormitory for foreign enrollments.

### **Program Efficiency:**

The AVIT program is structured to provide, upon completion, a Federal Aviation Administration certified commercial pilot with multiengine and instrument ratings and instructor pilot. Stopping after one, two or three semesters should not be considered a program deficiency. Several students may not desire nor have funds to obtain all the offered ratings. Some student aspirations are satisfied with a private license or a commercial license, which are available through one or three semesters respectively. A long-term student loan source will be an objective for the AVIT program. HCC will also seek an ab initio airline carrier partner to increase enrollment during the next year.

To meet demands airlines carriers will have to consider supporting, adopting, sponsoring, promoting or resourcing aviation schools, and /or offering scholarships, loans and internships. Few airlines have recognized this symbiotic relationship. PATC actively seeks to establish partnerships with air carriers to sponsor scholarships, internships and bridge training.

### **Program Outcomes:**

Many students have college degrees and opt not to obtain an associate degree. Several students continue at a 4-year college without a HCC associates degree. As of Spring 2001 eleven students have elected to continue their aviation education at the University of North Dakota (UND). This summer two students are expected to graduate with an associate degree, while three others will transfer to UND. With the articulation agreement the program outcome should include student transferring to UND.

### **Overall Health Summation:**

This three-year old program continues to attract students. The health indicators will continue to be impacted by the high cost. Despite the cost, the program remains attractive to state residents. Improvement of health indicators will be dependent of attracting Asia-Pacific enrollments.

**Program: AVIT**

<b>Indices</b>	<b>Minimum Level</b>	<b>Actual Level</b>	<b>Satisfactory Level</b>
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	3.79	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	39%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	8%	41%

## Appendix A

### COMMERCIAL AVIATION (AVIT)

#### **Program Description:**

The Honolulu Community College Commercial Aviation program provides a career path into the field of professional aviation. The program utilizes a rigorous flight curriculum, meeting requirements for the training of professional pilots to be employed by all airlines and general aviation. The program provides students with the opportunity to obtain training and certification leading to a career as professional pilots with commercial air carriers. The program prepares students to continue in aviation academic fields to obtain baccalaureate training, or to seek employment as flight instructors and entry-level pilots. The University of North Dakota (UND) Aerospace has contracted with HCC to provide all flight services and training in Hawaii.

#### **Program goals:**

Students are expected to fly between 3-4 hours per week during the semester. If the student is not financially able to sustain the flight requirements, they should reconsider enrolling in the program until they are financially able. Some financial aid is available to those who qualify.

A current medical certificate is required for all students planning to begin flight training. A medical doctor who is a designated FAA Medical Examiner must perform the physical examination. Students are advised to obtain their medical certificates well in advance of beginning the flight program. This will ensure that medical problems or physical limitations that may alter career plans can be addressed before entering flight classes. Students are advised to obtain a Class I medical certificate if they are planning on a career in professional flight. Students must have a Class III medical certificate before beginning any flight course in the program.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Program Prerequisites Placement in ENG 22 Placement in MATH 27	FLIGHT MEDICAL CLEARANCE ALSO REQUIRED	Associate in Science Degree Credits
General Education Requirements*:		
ENG 100	Expository Writing	3
SP 151	Personal and Public Speech	3
QM 122	Mathematics for Decision Making II	3
OR		
MATH 205	Calculus I	
HIST 151	World Civilization I	3
OR		
HIST 152	World Civilization II	
MET 101	(Group A)	3
MET 101L	(Group A)	1
ICS101	(Group B)	3
ECON 130	(Group C)	3
POLSC, PSY, or SOC Elective	(Group C)**	3
Elective	(Group D)**	<u>3</u>
		28
Major Courses:		
AVIT 102	Introduction to Aviation	5
AVIT 104	Aviation History	3
AVIT 202	Air Transportation	3
AVIT 203	Introduction to Air Traffic Control	2
AVIT 205	Airline Operation and Management	3
AVIT 208	Aviation Safety	3
AVIT 214	CFI Certification	5
AVIT 250	Human Factors	2
AVIT 251	Aircraft Systems & Instruments	3
AVIT 252	Basic Attitude Instrument Flying	3
AVIT 253	Aerodynamics – Airplanes	3
AVIT 254	IFR Regulations & Procedures	3
AVIT 255	Multiengine Systems & Procedures 4th	<u>2</u>
		40
Minimum Credits Required:		68

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
AVIT 102	18	24
AVIT 104	13	24
AVIT 202	6	24
AVIT 203	11	24
AVIT 208	10	24
AVIT 214	2	24
AVIT 250	9	24
AVIT 251	15	24
AVIT 252	14	24
AVIT 253	2	24
AVIT 254	2	24
AVIT 255	7	24

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**CARPENTRY (CARP)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS**

**HONOLULU COMMUNITY COLLEGE**

The Carpentry Technology (CARP) program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

With the downturn in the construction industry in Hawaii, the demand for this program has decreased. The retirement of two long-time faculty members in the program following the Spring 2000 and Fall 2000 semesters has decreased the recruiting activities in the program. A new faculty member has been hired and the Admissions Counselors have been charged with putting a recruiting emphasis in this program. Even with a still sluggish State construction economy, these efforts should increase the demand for this program.

**Program Efficiency:**

The same reasons that program demand is below the minimum levels can be cited for the program efficiency to be below the minimum also.

**Program Outcomes:**

This program’s graduation/openings ratio falls above minimum levels. Graduation rates will be monitored.

**Overall Health Summation:**

The overall health of this program certainly needs improvement. With an added emphasis of the faculty member in the program and the College Admissions Counselors, the program demand and efficiency should return to a satisfactory level.

**Program: CARP**

<b>Indices</b>	<b>Minimum Level</b>	<b>Actual Level</b>	<b>Satisfactory Level</b>
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	.56	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	27%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	36%	41%

## Appendix A

### CARPENTRY (CARP)

#### Program Description:

The Carpentry program prepares students for employment in carpentry and general construction. Entry into this trade is usually gained through a four-year indentured apprenticeship. The Carpentry Department offers a program of instruction which, when successfully completed, provides an excellent background for those desiring to enter the apprenticeship program. The Carpentry Technology program at HCC is a four-semester program, which prepares students for employment in carpentry and general construction

#### Program Goals

Students completing the program may earn a certificate of achievement or associate of applied science degree. Instruction is provided in both a classroom setting and through hands-on laboratory experience. Courses include Basic Carpentry, Blueprint Reading, Concrete Form Construction, Framing and Finishing. Carpenters build and maintain structures ranging from rough scaffolds and concrete forms to buildings that require exact finish work. They work with wood, metal plastic and concrete. Using both hand and power tools, carpenters erect wood frameworks for building, install window frames, apply exterior siding, and install moldings, cabinets, doors, and hardwood finish.

#### Program History:

The Carpentry Program at Honolulu Community College was established in 1919 when the then Territorial Legislature appropriated funds to operate an all-day school known as the Industrial Trade School. The program was part of Honolulu Technical School when HTS programs were incorporated into the University of Hawaii System of Community Colleges in 1964. There was one full-time instructor in the program until 1966 when a second instructor was hired. It is one of the four community college programs in the state; the others are located on Kauai, Maui and Hawaii.

Continuous articulation with the other community college faculty in carpentry since 1975 has resulted in course equivalency of content among the colleges.

Curriculum changes to meet the needs of Hawaii's construction industry were made in 1971 and 1982.

Course content relating to the theoretical aspects has not changed significantly over time. However, technical changes in the courses are ongoing to keep up with industrial standards. Health and safety training and practices have been increased. Students are instructed and tested on the operational safety of each piece of equipment in order to meet Hawaii State OSHA requirements and to be qualified to use the equipment.

In 1982 curriculum changes were made to update training. The advisory committee consisting of private contractors, union members, apprenticeship coordinators and others made requests for curriculum changes to better prepare students for apprenticeship status. After discussions and review, proposals were prepared and submitted to curriculum committees. The changes approved by Honolulu Community College were implemented in 1982. Mathematics 55 and one blueprint course were deleted as requirements. The mathematics needed for carpenters was incorporated into the carpentry course lectures. Class time was increased to cover the added material. Carpentry courses were increased from 10 credits each to 11 credits each.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Requirements for admission into the Carpentry program are the same as that for admission into the college--any U.S. high school graduate or any person 18 years or over who can profit from the instruction offered is eligible for admission to the College, subject to the availability of resources.

The prerequisites to the carpentry program are placement in English 21/51 and in Math 50/53. Students who need remedial work must complete the prerequisites before becoming eligible to take major courses.

#### Program Prerequisites:

**ENG 20B & C & D & E or ESL 11 & 12 & 13 & 17  
OR Placement in ENG 21/51  
MATH 20B & C & D OR Placement in MATH 50/53**

**Certificate  
Achievement  
of  
Credits**

**Associate  
in Applied  
Science  
Degree Credits**

#### First Semester

CARP 20	Introduction to Carpentry	11	11
BLPRT 30F	Blueprint Reading For Carpenters	4	4
MATH 50	Technical Mathematics I	3/4	¾
Or MATH 53	Technical Occupational MATH		

#### Second Semester

CARP 22	Concrete Form Construction	11	11
General Education Requirement (OESM 101 or Group C)*		3	3
ENG 51	Technical Reading		3

#### Third Semester

CARP 41	Rough Framing & Exterior Finish	11	11
General Education Requirement*			3

#### Fourth Semester

CARP 42	Finishing	11	11
General Education Requirement*			3

Minimum Credits Required	54/55	63/64
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\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

\*\*Students desiring full-time status are required to register for 12 credits. Recommended course: WELD 19, Welding for Trades and Industry.

**Note:** Students must meet the minimum proficiency standards in communication established by the College to qualify for the Certificate of Achievement.

#### Fall 2000 Enrollment

Course ID	Current Enrollment	Maximum Enrollment
CARP 41	6	25

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Uyeda, Jeffrey Graduate Carpentry Apprenticeship Program

Watanabe, Kenneth Graduate Apprentice, Honolulu Technical School Contracting - Certificate, Scranton, Pennsylvania  
Building A.S. Honolulu Community College B.Ed. University of Hawaii

#### **Program Advisory Committee**

Elroy Chun, Building Industry Association of Hawaii

Walter Ishii, W M Ishii Contracting

Kazukiyo Kuboyama, Retired Apprenticeship Instructor, Honolulu Community College

Norman Lum, Components Inc.

Denis Mactagonee, Hawaii Carpenters Apprenticeship & Training Office

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Communication Arts (CA)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The CA program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand and it's demand indicator falls above the group satisfactory level.

**Program Efficiency:**

This program's class fit ratio above group minimum level. The low enrolled classes will be monitored.

**Program Outcomes:**

The program's graduates/opening ratio has increased to above satisfactory level.

**Overall Health Summation:**

Demand, efficiency and graduates per opening ration are all above satisfactory levels. Retention is above average at 87%. The program continues to work on developing a student and graduate tracking system to document this.

**Program: CA**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	4.65	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	77%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	55%	41%

## Appendix A

### COMMUNICATION ARTS (CA)

#### Program Description:

The Communication Arts program embraces three areas of study that are interrelated: Design, Print, and Multimedia. The CA program focuses on meeting the ever-changing needs of business industry. The Communication Arts program prepares students for entry-level employment, graphic and advertising, desktop publishing, electronic imaging and pre-press, on-line publishing, digital photography, and all other aspects of the publishing and printing industries, including service bureaus and other related industries

Costs for the two-year program for required texts and supplies range from \$700-2000.

#### Program goals

This program is structured to prepare students for entry-level employment in a variety of areas within the industry, including graphic design, desktop publishing, advertising, illustration, photography and multi-media. Courses may also meet the in-service needs of working professionals.

The program currently offers a sequence of courses leading to an Associate of Science (A.S.) degree in Communication Arts.

#### Program History:

The program began in 1966 under the name Applied Art; the name was changed in 1976 to Commercial Art and more recently to Communication Arts. The program was recognized in 1985 as one of the top Vocational-Technical programs in the nation. At the same time the Advisory Board of the program also received recognition by the State of Hawaii for its contribution to the success of the program.

The program's primary goal has continued to address Hawaii's need for entry-level employees in various segments of the Art field, an industry which enjoys a stable rate of growth and for which new workers at the entry level are needed on an ongoing basis.

The program has continued to respond to industry needs, including teaching electronic technology for production in print and other media.

The curriculum includes courses in basic principles and skills as well as specialty courses in design, print, and multimedia arts. The sequence of courses is designed to provide students with a diverse and versatile background. Elective course options provide a good fit between student interests and abilities on the one hand, and viable employment options on the other.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Students may enter the program in either the fall or spring semesters.

Students need to place in ENG 100 and in MATH 24/50 and to demonstrate competence in basic computer skills, as evidenced by completion of ICS 100.

#### Program Prerequisites:

**ENG 22 or 60 OR Placement in ENG 100**  
**MATH 20B & C & D OR Placement in MATH 24/50**  
**ICS 100 OR 100E or 100M or 100T (100M preferred)**

#### General Education Requirements:

Communications	3
Quantitative or Logical Reasoning	3

ICS 100M	Computing Literacy and Applications (Manufacturing)(Group B)	3
CA 101	Power of Advertising (Group C)	3
CA 100	Survey of Graphic Styles (Group D)	3

#### Major Courses (Core):

CA 121 I	Art Prep	4
CA 122 I	Copy Prep	4
CA 123	Color/Comprehensives	4
CA 131 II	Art Prep	4
CA 132	Page Composition	4
CA 155	Portfolio	4

#### Additional Major Courses:

(Design Group or Print Group or Multimedia Group) Minimum credit required	<u>25-28</u> 64-67
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<b>COURSES</b>	<b>TITLE</b>	<b>CREDITS</b>
<b>Design Group</b>		
CA 125	Beginning Graphic Design	4
CA 135	Typographic Design	4
CA 142	Page Composition II	4
CA 143	Pre-press Image Assembly	4
CA 145	Graphic Design	4
CA 152	Ad Research and Campaign	4
One of the following:		
CA 146	Advertising Design	4
or CA 150	Special Projects	4
or CA 193V	Cooperative Education	1-4
<b>COURSES</b>	<b>TITLE</b>	<b>CREDITS</b>
<b>Print Group</b>		
CA 130	Safety Practice	1
CA 130	Beginning Offset Press	7
CA 141	Page Composition II	4
CA 142	Pre-press Image Assembly	4
CA 143	Advance Offset Press	8
CA 151		
One of the following:		4
CA 150	Special Projects	1-4
CA 193	Cooperative Education	
<b>COURSES</b>	<b>TITLE</b>	<b>CREDITS</b>
<b>Multimedia Group</b>		
CA 125	Beginning Graphic Design	4
CA 130	Safety Practice	1
CA 134	Still Imaging I	4
CA 144	Still Imaging II	4
ICS 102	Intro to Internet Resources	3
One of the following:		
CA 135	Typographic Design	4
CA 137	Motion Imaging I	4
CA 138	Motion Imaging II	4
One of the following:		
CA 147	Studio Photography	4
CA 148	3D Animation	4
One of the following:		
CA 150	Special Projects	4
CA 193	Cooperative Education	1-4

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
CA 100	17	20
CA 100	21	20
CA 101	18	20
CA 101	21	20
CA 121	20	20
CA 122	22	20
CA 123	20	20
CA 125	20	20
CA 131	12	14
CA 132	9	20
CA 142	9	14
CA 143	9	20
CA 145	23	20
CA 147	8	10
CA 150	7	20
CA 155	9	20
CA 193V	9	75
CA 197	18	20

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Harrison Brooks  
Michel Kaiser  
Sandra Sanpei

#### **Program Advisory Committee:**

John Alves, Honolulu Magazine  
Anita Liptak, Hagadone Printing Co.  
Ric Noyle, Ric Noyle Photography  
Donald Ojiri, Obun Hawaii, Inc.  
Richard Puetz, Chair, Loomis and Pollock  
Lee Schaller, Reed Kaina Schaller & Strom Advertising, Inc.  
Marivic Yao, DiscMaker

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Computing, Electronics, and Networking Technology (CENT)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The CENT program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand and its demand indicator falls above the group satisfactory level.

**Program Efficiency:**

As evidenced by this program's class fit ratio, this program's efficiency indicator fall above group satisfactory level.

**Program Outcomes:**

This program's graduation/openings ratio falls above minimum levels. Graduation rates will be monitored.

**Overall Health Summation:**

**Program: CENT**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	5.68	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	77%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	23%	41%

## Appendix A

### COMPUTING, ELECTRONICS, AND NETWORKING TECHNOLOGY (CENT)

#### Program Description:

The Computing, Electronics, and Networking program is a two-year program of study that prepares students for employment in the electronics and computing industries. These are some of the fastest growing job markets today. Through a choice of electives, students can choose to concentrate on a particular area of interest. Among the elective courses are electronic diagnosis and repair, electronic devices, communication systems, network administration, Windows NT server and networking with TCP/IP and UNIX. The program may also help to prepare students to pass the exams in Computer Technician A+ certification, CISCO networking, Novel Networking and Microsoft Certified Professional exams. Students are required to participate in an internship or cooperative education experience before completing the program.

Cost of equipment and textbooks ranges between \$500 and \$1500 for the entire program depending on the courses taken.

#### Program Goals

The Computing, Electronics, and Networking program is a two-year program of study that prepares students for employment in the electronics and computing industries. Through a choice of electives in the third and fourth semester of study, students can choose to concentrate on a particular area of interest. Such areas could include telecommunications, product servicing, computers and networking, and biomedical applications. Where possible, students are encouraged to participate in an internship or cooperative education experience in the fourth semester of study.

#### Program History:

The program traces back to the Honolulu Technical School where prior to 1959 it was known as the Radio and TV Repair Program. Later it was renamed Electronics Technology. After the Community College Act of 1964 went into effect, Honolulu Technical School became Honolulu Community College, and the Electronics program became part of the community college curriculum.

For a time, the program offered options in Communications and Biomedical Electronics. The program was stopped out in 1988, and in 1989 a new program was implemented to focus on the basics in electronics. In the 90s, the name was changed to Computing, Electronics, and Networking Technology to reflect a change in direction and in the need for network technicians.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Students are admitted into the program each semester. Program admission is based on first qualified; first accepted basis until the program quota is reached.

The minimum requirements for admission are placement in ENG 22/60 and in MATH 55. Students must also provide a health clearance, attend a program orientation, and show proof of insurance prior to enrollment.

#### Program Prerequisites:

**ENG 22 or 60 or Placement in ENG 100**  
**"C" or higher in MATH 25 OR Placement**  
**in MATH 27/107**  
**ICS 100E**

**Associate in Applied  
Science Degree  
Credits**

#### Communications Requirement

ENG 100	Expository Writing	3
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#### Quantitative and Logical Reasoning

MATH 107	Technical Math for the Information Age	4
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#### General Education Requirements

PHYS 130	Introduction to Fiber Optics (Group A)	4
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ICS 100E	Computer Literacy and Applications (Electricity & Electronics) (Group B)	3
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\*General Education Requirement (Group C/D)

#### CENT Core Courses

CENT 102	Introduction to Internet Resources	3
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CENT 112	Fundamentals of Electronics	4
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CENT 113	Digital Electronics	4
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CENT 130	Microcomputer Operating Systems	4
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CENT 131	Microcomputer Hardware I	4
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CENT 140	Computer Networking I	4
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CENT 231	Data Communication	4
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CENT 232	Microcomputer Hardware II	3
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**CENT Electives	(to be taken in the third and fourth semesters)	
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CENT 290V	CENT Internship	14
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or CENT 293V	Cooperative Education	3
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Minimum Credits Required		65
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\*General Education Requirements for the AS degree are listed under Degrees and Certificates and must be numbered 100 or higher.

\*\*CENT Electives - For concentration of study in a specific emphasis within the program the following electives are recommended:

Computing: ICS 111, 141, 211, CENT 202, 244, 274

Electronics: CENT 164, 212, 260, 261, 262, 263, 264

Networking: CENT 240, 243, 244, 270, 272, 274

Under special circumstances, and with the prior approval of the program faculty, CENT 290V/293V may be repeated once for elective credit. Under these circumstances, up to 8 elective credits may be earned.

**COMPUTING, ELECTRONICS, AND NETWORKING TECHNOLOGY (CENT)**  
**(for students applying for graduation under the A.A.S. degree)**

**Program Prerequisites:**

**ENG 20B & C & D & E OR "C" or higher in ESL 11 and 12 and 13**

**OR Placement in ENG 22/60**

**"C" or higher in MATH 25 or in MATH 53 OR Placement in MATH 27/58**

**Communications Requirement**

ENG 60 or ENG 100

Technical Writing or Expository Writing

**Quantitative and Logical Reasoning**

MATH 58

or MATH 107

or MATH 135

Electronics Mathematics II

Technical Math for the Information Age

Pre-Calculus: Elem. Functions

**Other General Education Requirements**

ICS 100E

Computer Literacy and Applications  
 (Electricity & Electronics) (Group B)

Introduction to Fiber Optics (Group A)

Anatomy & Physiology (Group A)

(Biomed students only) General Physics I

Job Placement (Group B)

PHYS 130

or BIOL 130

or PHYS 170

SD 90C

\*General Education Requirement (Group C/D) (IS 100 recommended)

**CENT Core Courses**

CENT 20 or 112

CENT 21 or 113

CENT 30 or 130

CENT 31 or 231

Fundamentals of Electronics

Digital Electronics

Microcomputer Operating Systems

Data Communication

\*General Education Requirements for the A.S.S. degree are listed under Degrees and Certificates and must be numbered 100 or higher.

**CENT Core Courses (cont)**

CENT 32 OR 131

Microcomputer Hardware I

4

CENT 40

Computer Systems

4

or CENT 232

Microcomputer Hardware II

CENT 41 or 140

Computer Networking

4

CENT 102

Introduction to Internet

3

Resources

\*\*CENT Electives

(to be taken in the third and fourth semesters)

14

CENT 90V or 290V

CENT Internship

3

or CENT 93V or 293V

Cooperative Education

Minimum Credits Required

65-66

\*General Education Requirements for the A.S.S. degree are listed under Degrees and Certificates.

\*\*Electives - CENT 33, 60, 61, 63, 64, 65, 66, 90V, 93V, 164, 212, 215, 227, 240, 241, 242, 243, 244, 260, 261, 263, 264, 270, 272, 274, 276, 290V, 293V, 299V; CHEM 162; COMUN 263C; EE 150; ICS111, 141, 151C, 202, 211, 241; MATH 206

Generally, up to four credits of the required 14 elective credits may be earned in CENT 90V/93V, 290V/293V - Internship/Cooperative Education. Where possible, students are strongly encouraged to participate in an internship or cooperative education experience.

Under special circumstances, and with the prior approval of the program faculty, CENT 90V/93V, 290V/293V may be repeated once for elective credit. Under these circumstances, up to 8 elective credits may be earned.

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
CENT 102	18	24
CENT 102	15	30
CENT 112	24	24
CENT 112	23	21
CENT 113	24	24
CENT 113	23	21
CENT 130	25	24
CENT 130	22	21
CENT 131	20	20
CENT 131	15	20
CENT 131	20	20
CENT 140	22	24
CENT 140	20	24
CENT 140	21	20
CENT 164	10	20
CENT 164	4	20
CENT 227	20	24
CENT 231	11	20
CENT 231	19	20
CENT 232	12	20
CENT 232	19	20
CENT 240	15	24
CENT 240	15	24
CENT 260	12	20
CENT 264	6	24
CENT 270	17	20
CENT 270	20	20
CENT 290V	27	25
CENT 293V	22	25
CENT 297	16	24
CENT 297B	4	9
CENT 299V	6	24

## Appendix C

### Program Faculty and Advisory Committee

#### Program Faculty:

Inamine, Richard	MS, Associate Professor
Jacoby, Paul	A.S., Instructor
Tanaka, Aaron	MS, Associate Professor
Shiroma, Dallas	MS, Associate Professor
Castell, Michael	BS, Instructor

#### Program Advisory Committee:

Kit Beuret, Oceanic Cable  
Kent Leong, Cisco Systems  
Kevin Lubera, GTE  
Karl Fukushima, Honolulu Cellular  
David Ige, Legislator  
Cruz Vina, Pearl Harbor  
Mike Chun, Pearl Harbor

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Cosmetology (COSME)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The COSME program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

Demand for this program is at 2.9, which is above the satisfactory level.

**Program Efficiency:**

Class Fit Ratio is at 57%, which is below the minimum level .

**Program Outcomes:**

This program’s graduation/openings ratio falls above satisfactory levels.

**Overall Health Summation:**

The program is above satisfactory levels for demand and outcomes and is below the minimum level for efficiency. Intake of students is dependent on the instructor-student ratio set by State Board of Cosmetology and Barbering as well as the physical facility. When attrition occurs, the program is not able to fill open slots due to the progressive nature of its two-year curriculum. The start-up of a new esthetician course has slightly decreased the class fit ratio. This is expected when any new course is offered.

**Program: COSME**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	2.90	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	57%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	62%	41%

## Appendix A

### COSMETOLOGY (COSME)

#### Program Description:

The Cosmetology program is part of an international member school system that teaches the technique known as Pivot Point. \* Pivot Point developed its own training method that is a system of learning that completely revolutionized hair and beauty education. This offers to the students the highest degree of manipulative skills and theory, which meet the standards and requirements of the State Board of Cosmetology, and of other careers in the world of hair and beauty. This knowledge and ability is achieved first through lecture and demonstration followed by actual work in a salon atmosphere. Students receive a minimum of 1800 clock hours of lecture and clinical experience.

A basic cosmetology kit, uniform and textbooks cost approximately \$900.

#### Program Goals

The Cosmetology department offers three Certificates and a four-semester Associate in Applied Science degree program. The curriculum is designed to prepare the student for the State Board of Cosmetology Examination. Upon passing the examination the individual becomes a licensed cosmetologist.

A grade of "C" or higher is required to pass courses in the major and complete 1800 clock hours for both the Certificate of Achievement and the Associate in Applied Science degree.

#### Program History:

The Cosmetology Program at Honolulu Community College traces back to the Honolulu Technical School. After the Community College Act of 1964 went into effect, Honolulu Technical School became Honolulu Community College and the Cosmetology Program became part of the community college curriculum. This is the only such program in the state community college system.

Until 1992, the program offered a standard, basic cosmetology program. In February 1993, it became a member of Pivot Point International and new methods and techniques were incorporated into the curriculum. The program now connects with 2,000 member schools in 45 countries.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Students are admitted into the program each semester. Program admission is based on first qualified; first accepted basis until the program quota is reached. The minimum requirements for admission are placement in ENG 22/60 and in Math 50; high school diploma or equivalent. Students must also provide a health clearance, and attend a program advising/orientation session.

#### Program Prerequisites:

High school diploma or equivalent

ENG 20B & D & E & ESL 11 & 12 & 14 & 15

OR Placement in ENG 22/60

MATH 20B & C & D OR Placement in MATH 50

Certificate of  
Achievement  
Credits

Associate in Applied  
Science  
Degree Credits

#### First Semester

COSME 20	Elementary Cosmetology Theory	3	3
COSME 21L	Elementary Cosmetology Lab	10	10
COMUN 50*	Working with Clients	3	3

#### Second Semester

COSME 30	Intermediate Cosmetology Theory	3	3
COSME 31L	Intermediate Cosmetology Lab	10	10
CHEM 55*	Fundamentals of Cosmetic Chemistry	3	3

\*Communication 50 taken concurrently with COSME 20-21L; CHEM 55, with COSME 30-31L.

#### Third Semester

COSME 40	Advanced Cosmetology Theory	3	3
COSME 41L	Advanced Cosmetology Lab	10	10
General Education Requirement (ART 30 or BUS 20)			3

#### Fourth Semester\*\*\*

Elective			3
General Education Requirements**			9
Minimum Credits Required (See Note)		45	60

#### Fall 2000 Enrollment

Course ID	Current Enrollment	Maximum Enrollment
COSME 20	26	25
COSME 21L	26	25
COSME 30	14	25
COSME 31L	14	25
COSME 40	13	25
COSME 41L	15	25
COSME 41L	12	35
COSME 50V	3	25
COSME 60	16	16
COSME 61L	17	16
COSME 61L	16	16
COSME 80V	1	3
COSME 93V	7	25

## Appendix C

### Program Faculty and Advisory Committee

#### Program Faculty:

Aki, Jessie	Hollywood Beauty College, Cosmetology Instructor's Certificate.
Au, Nancy-Beth	Cosmetology Instructor's Certificate, B.Ed. University of Hawaii.
Kamakaiwi, Kathleen	Pivot Point Beauty School, Cosmetology Instructor's Certificate

#### Program Advisory Committee:

Lloyd Horibe, Hairsapes  
Francis Loo, Beatec International, Inc.  
Dawn Marie, Dawn Marie A Spa/Salon  
Toni Turk-Cook, Supercuts Hawaii  
Hanalei E. Williams, Hanalei Salon Boutique  
Kelly Worsencroft, General Merchandising Manager, J.C. Penney Co., Inc.

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Diesel Mechanics (DIESL)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The DIESL program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand and it's demand indicator falls slightly below the group satisfactory level.

**Program Efficiency:**

As evidenced by this program's class fit ratio, this program's efficiency indicator fall well above group satisfactory level.

**Program Outcomes:**

This program's graduation/openings ratio falls above satisfactory levels.

**Overall Health Summation:**

This is a consistently strong and healthy program. Indicator data show good vitality over all.

**Program: DIESL**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	2.12	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	120%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	91%	41%

## Appendix A

### DIESEL MECHANICS (DIESL)

#### Program Description:

The Diesel Mechanics Technology program at HCC is a four-semester program, which prepares students for employment as heavy equipment technicians. Students completing the program may earn a Certificate of Completion, Certificate of Achievement or Associate of Applied Science degree.

#### Program Goals:

The program is designed to provide knowledge and hands on experience with heavy- duty truck engines and chassis components and to develop proficiency in the maintenance and repair of diesel engines, fuel and electrical systems, and driveline and suspension components. Heavy equipment technicians maintain and repair transportation vehicles, boats, and heavy construction, agricultural, and industrial equipment, determine causes of equipment problems and make the necessary adjustments or repairs and perform preventive maintenance inspections on heavy equipment.

#### Program History:

The Heavy Equipment Maintenance and Repair (HEMR) program was initially established in 1962 as part of the Machine Shop Technology (MST) program. In 1969 the program was deactivated due to facilities constraints, lack of adequate equipment and tools, and program priorities. Heavy pressure from industry resulted in reactivation of the program in 1972.

The HEMR program moved into a new facility at 445 Kokea St., Building 44 in 1988. In 1992-93, the program was stopped out due to low enrollment. Faculty members made major course revisions, including modularizing the courses.

The program was reactivated for fall of 1993. The college requested and received permission to rename the program from HEMR to Diesel Mechanics Technology (DIESL) and to offer a Certificate of Completion. Students are admitted every other fall.

This program is only one of two in the State of Hawaii and the only one on the island of Oahu. Certificates of Completion allow students to enter the heavy-duty truck maintenance field in a relatively short time. Certificates also accommodate in-service training needs. These revisions were also made to accommodate in-service training needs.

The DIESL program is structured to accept returning students and/or industry workers (provided they meet prerequisites or receive instructor approval) into credit courses for upgrading of knowledge and skills or completion of the Associate in Applied Science Degree. Employment Training Center (ETC) students have occasionally enrolled in the program.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

The prerequisites to the Diesel Mechanics program are placement in ENG 21/51 and in MATH 50/53

<b>Program Prerequisites:</b>		<b>Certificate of Achievement Credits</b>	<b>Associate in Applied Science Degree Credits</b>
<b>ENG 20B &amp; C &amp; D &amp; E or ESL 11 &amp; 12 &amp; 13 &amp; 17</b>			
<b>OR Placement in ENG 21/51</b>			
<b>MATH 20B &amp; C &amp; D OR Placement MATH 50/53</b>			
<b>First Semester</b>			
DIMCH 20	Technical Practices	2	2
DIMCH 22	R&R Components	3	3
DIMCH 24	Operator Orientation	2	2
DIMCH 26	Basic Chassis Systems	2	2
DIMCH 28	Lubrication and Servicing	3	3
WELD 19	Welding for Trades and Industry	3	3
MATH 50	Technical Mathematics I		¾
Or MATH 53	Technical-Occupational MATH		
<b>Second Semester</b>			
DIMCH 30	Differential Rebuilding	2	2
DIMCH 32	Transmission Rebuilding	4	4
DIMCH 34	Brakes-Air and Hydraulic	3	3
DIMCH 36	Suspension and Steering	3	3
ENG 51	Technical Reading		3
<b>Third Semester</b>			
DIMCH 40	Diesel Engine Fundamentals		2
DIMCH 42	Detroit Diesel Engines		3
DIMCH 44	Cummins Diesel Engines		3
DIMCH 46	Caterpillar Diesel Engines		2
DIMCH 48	International Diesel Engines		2
PHYS 56	Basic Electrical Theory and Lab		4
<b>Fourth Semester</b>			
DIMCH 52	Electrical Systems		3
DIMCH 54	Diesel Injection Systems		3
DIMCH 56	Hydraulics		2
DIMCH 60	Diagnostics		4
ICS 100T	Computing Literacy and Applications (Transportation)		3
Or ICS 100	Computing Literacy and Applications		
PSY 180	Psychology of Work		3
Minimum Credits Required		27	67/68

**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement

**. CERTIFICATES OF COMPLETION**

**Program Prerequisite:**

**ENG 20B & C & D & E or ESL 11 & 12 & 13 OR Placement IN ENG 21/51  
MATH 20B & C & D OR Placement in MATH 50/53**

<b>Certificate Description:</b>	<b>Lube and Servicing</b>	<b>Differential Rebuilding</b>	<b>Transmission Rebuilding</b>	<b>Brake Systems</b>
<b>First Semester</b>				
Technical Practices DIMCH 20	2	2	2	2
R & R Components DIMCH 22	3	3	3	3
Operator Orientation DIMCH 24	2	2	2	2
Basic Chassis Systems DIMCH 26	2	2	2	2
Lubrication and Servicing DIMCH 28	3	3	3	3
<b>Second Semester</b>				
Differential Rebuilding DIMCH 30		2		
Transmission Rebuilding DIMCH 32			4	
Brakes-Air and Hydraulic DIMCH 34				3
Suspension and Steering DIMCH 36		3	3	3
Minimum Credits Required	12	17	19	18

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
DIMCH 40	28	24
DIMCH 42	28	24
DIMCH 44	28	24
DIMCH 46	28	24
DIMCH 48	28	24

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Onomura, Paul    Bendix, Detroit Diesel, Mack, P/bilt products, Licensed Mechanic

#### **Program Advisory Committee:**

Mike Ryan, Sales Representative, Detroit Diesel Allison  
Winfred Ho, Vice President, Highway Transportation & Contracting  
Ted Dela Cruz, General Manager, HT & T Truck Center  
Anthony Shanahan, Foreman, Marine Diesel Repairs & Rental  
Richard R. DeRego, Manager of Technical Services, Oahu Transit Group

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Drafting Technology (DRAFT)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The DRAFT program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand and it's demand indicator falls below the group satisfactory level.

**Program Efficiency:**

The class fit ratio is well below the 59% minimum

**Program Outcomes:**

This program's graduation/openings ratio falls below satisfactory levels.

**Overall Health Summation:**

The DRAFT program will respond to the declining trend in demand and enrollments by undergoing major program revisions in consultation with it Community Advisory Committee. With the revision of the Drafting Design to the Architectural, Engineering, CAD Technology program it is anticipated more students will enroll into the program. Next year's enrollment will be monitored to determine the growth of the program.

**Program: DRAFT**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	1.60	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	33%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	5%	41%

## Appendix A

### DRAFTING TECHNOLOGY (DRAFT)

#### Program Description:

The Drafting program is designed to prepare students for immediate employment as architectural or engineering drafters. Some students, however, use the program to prepare for employment in building construction, interior design drafting, construction supervision, surveying, and various other fields. Other students use the program as a step on the way to a bachelor's degree in architecture or engineering.

The program has two options -- an architectural option and an engineering option. Both emphasize drafting fundamentals and construction materials and methods. The architectural option also emphasizes working drawings and architectural graphics, the engineering option engineering computations and surveying.

#### Program Goals

The two-year Drafting Technology program is designed to prepare students for entry-level employment as production drafters in architecture and related fields. Program emphases include drafting fundamentals with a concentration on working drawings, materials and building construction, CAD, and general education.

The program leads to the Associate in Applied Science degree. For degree students who wish to continue to a five-year university program in architecture, there are more than 20 credits of transfer-level course work available in Drafting Technology and General Education. For students who do not seek the Associate in Applied Science degree but want to use the program for specialized purposes or to prepare for specific jobs, there is a Certificate of Achievement series of courses. The program also serves students who seek neither the Associate in Applied Science degree nor the Certificate of Achievement but wish to take only transferable, lower-division architecture courses, specific courses for employment upgrading, or other program courses solely of their choosing.

#### Program History:

The program was established in 1964 as Architectural Drafting Technology. It was one of the Honolulu Technical School programs incorporated into the Hawaii Community College System. It has been quartered since 1976 in Building 2 on the Honolulu Community College main campus.

Primarily in response to developments in industry, the program has undergone numerous changes since its inception. Computer-aided drafting (1985) and systems processes (1987) were incorporated into the program. Transfer-level courses were also incorporated (1987) to accommodate students interested in transferring to a school of architecture at a four-year institution.

The program is currently being revised to better meet the needs of industry, incorporate the latest technologies, and increase the role of engineering and design in the curriculum. It is proposed to change the title of the program to Architectural, Engineering and CAD Technologies (AEC).

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Students are admitted to the program throughout the year. Upon achieving placement in English 22/60 and in Math 50/53, they are enrolled in first-semester drafting courses on a first-qualified, first-enrolled basis until the courses are filled. The minimum qualifications for admission are:

- 18 years of age or older, or
- A U.S. high school graduate.
- 

<b>Program Prerequisite: ENG 20B &amp; C &amp; D &amp; E OR "C" or higher in ESL 11 &amp; 12 &amp; 13 OR Placement in ENG 22/60</b> <b>Architectural Option: MATH 20B &amp; C &amp; D &amp; E OR Placement in MATH 50/53</b> <b>Engineering Option: "C" or higher in MATH 24 OR Placement in MATH 25</b>	<b>Certificate of Achievement Credits</b>	<b>Associate in Applied Science Degree Credits</b>
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#### ARCHITECTURAL EMPHASIS

##### Suggested First Semester

DRAFT 20	Introduction to Construction Drawings	4	4
DRAFT 26	Construction Materials	3	3
ARCH 121	Design Drawing	3	3
ENG 60 or 100	Technical Writing or Expository Writing		3
ENG 100	Expository Writing		3
General Education Requirement (Rec: FAMR 296)		3	3

\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

##### Suggested Second Semester

DRAFT 36	Working Drawings I	4	4
DRAFT 42	Codes & Specifications	2	2
DRAFT 61	Intro. to Computer-Aided Drafting	3	3
Program Elective (See List Below)		3	3
MATH 53	Technical Occupational Math	4	4

##### Suggested Third Semester

DRAFT 38	Working Drawings II		4
DRAFT 30	Structural Drafting I		3
ARCH 122	Freehand Drawing		3
IS 100	Interdisciplinary Liberal Arts		3
Program Elective (See List Below)			3

**Suggested Fourth Semester**

DRAFT 40	Working Drawings III	4
DRAFT 44	Building Services	3
DRAFT 70	Field Shadow Experience	1
SD 90C	Job Placement	1
Program Elective (See List Below)		3
General Education Requirement (Group C Rec: ARCH 100 if 4th semester is Fall)		3
Minimum Credits Required		32 63

Program Elective Courses (9 credits required for the A.A.S. Degree; 3 credits required for the C.A.):

**Fall Semester**

DRAFT 23	Engineering Computations
DRAFT 43	Construction Estimating
DRAFT 46	Systems Drafting
ARCH 100	Intro to Man's Built Environment

**Spring Semester**

DRAFT 32	Structural Drafting II
DRAFT 49	Survey & Topography I
DRAFT 64	Computer Presentation Drawing

\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
DRAFT 26	14	30
DRAFT 30	16	20
DRAFT 36	13	24
DRAFT 40	3	24
DRAFT 70	3	30
DRAFT 93V	2	50

## Appendix C

### Program Faculty and Advisory Committee

#### Program Faculty:

Jennings, Michael,	B. ARCH.
Kato, Chester N.,	M. ARCH.
Madden, Douglas,	M.Ed.

#### Program Advisory Committee:

Karren Barozzi ASID MFA, Barozzi Design Inc.  
Gilman Hu AIA CSI  
Linda Kihune, State of Hawaii, Department of Personnel Services, Recruitment and Exam Division  
Spencer Leinweber AIA, Spencer Mason Architect  
Paul Morgan AIA, Suzuki-Morgan Architects  
Nancy Peacock AIA Inc.  
Roger Takamori, RS Takamori & Associates, Inc.  
Bettina Mehnart, Architects Hawaii, Ltd

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Electrical Installation and Maintenance Technology (EIMT)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The EIMT program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand and it's demand indicator falls above the group satisfactory level.

**Program Efficiency:**

As evidenced by this program's class fit ratio, this program's efficiency indicator falls above group satisfactory level.

**Program Outcomes:**

This program's graduation/openings ratio falls above satisfactory levels.

**Overall Health Summation:**

This is a consistently strong and healthy program. Indicator data show good vitality over all.

**Program: EIMT**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	4.50	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	82%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	108%	41%

## Appendix A

### ELECTRICAL INSTALLATION AND MAINTENANCE TECHNOLOGY (EIMT)

#### Program Description:

The Electrical Installation and Maintenance Technology program provides the fundamentals of electricity and wiring of simple circuits, residential interior wiring, commercial wiring and industrial wiring. Emphasis is placed on wiring in accordance with the provisions of the National Electrical Code. The program staff consists of two full-time faculty members. The program offers both a Certificate of Achievement (47 credits) and an Associate in Applied Science Degree (63 credits).

Electricians install wiring and maintain electrical equipment such as generators and lighting systems. Construction electricians assemble, wire, and install electrical systems for lighting, air conditioning, power, and other purposes; install electronic equipment and electrical machinery. Maintenance electricians keep electrical systems and equipment in good working order. They inspect and test systems and equipment, locate problems, and make repairs. Industrial electricians perform electrical work in existing industrial buildings and workplaces. Electricians need the ability to see and compare shapes and forms of objects; visualize three-dimensional objects; and have average eye-hand coordination. They often have to stand for long periods, work in narrow spaces, and may work at high heights. The employment outlook is average for the next few years.

#### Program Goals:

The Electrical Installation and Maintenance Technology Program is a two-year program. The curriculum is designed to provide the student with the basic knowledge and manipulative skills required for employment in the electrical industry. The program combines theory with laboratory activities to develop the skills essential to the electrical trade. The curriculum covers residential, commercial and industrial wiring and solid-state control.

#### Program History:

Honolulu Community College's Industrial Electricity Program (now Electrical Installation and Maintenance Technology) was one of the technology programs in operation at Honolulu Technical School when the school was incorporated into the University of Hawaii Community College System. After the Community College Act of 1964 went into effect, the School became Honolulu Community College and the Industrial Electricity Program became one of the community college programs of study.

In the fall of 1979, the Industrial Electricity department submitted a proposal for the modification of the Industrial Electricity curriculum; this proposal was subsequently approved for implementation in fall 1980. In addition, the name of the program was changed to Electrical Installation and Maintenance Technology (EIMT) to more appropriately reflect the program content.

In the fall 1988, another program modification was implemented. This involved incorporating two new courses, ELEC 50 (Solid State Control) and ELEC 52 (Solid State Control Lab) into the curriculum. The electrical industry is extremely dynamic and new equipment incorporating electronics and microprocessor based technology. This program modification gives our graduates the ability to better compete in the rapidly changing work environment.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### Program Admission Requirements:

Students are admitted into the program in the fall semester. Consistent with the College's open-door policy, students are provided entry into the EIMT Program on a first-come-first-served basis provided they meet the program prerequisites, which are ENG 22/60 and in MATH 50/53. Students who do not meet these prerequisites are classified as not eligible and are not permitted to enroll in the major courses.

#### Program Prerequisites:

**ENG 20B & C & D & E OR "C" or higher  
in ESL 11 & 12 & 13 OR  
Placement in ENG 22/60  
MATH 20B & 20C & 20D OR Placement in MATH 53**

**Certificate  
of  
Achievement  
Credits**

**Associate  
in Applied  
Science  
Degree Credits**

#### First Semester

ELEC 30	Electrical Installation Theory I	4	4
ELEC 32	Electrical Installation I	6	6
BLPRT 22	Blueprint Reading	3	3
PHYS 53	Fundamentals of Electricity	4	4

#### Second Semester

ELEC 44	AC/DC Systems and Equipment	4	4
ELEC 46	Electrical Maintenance and Repair	6	6
COMMUNICATION (Rec.: ENG 60 or 120)			3
MATH 55	Technical Mathematics II		3

#### Third Semester

ELEC 50	Solid State Control	4	4
ELEC 52	Solid State Control Lab	6	6
General Education (Rec: ICS 100)			

#### Fourth Semester

ELEC 40	Electrical Installation Theory II	4	4
ELEC 42	Electrical Installation II	6	6
General Education Requirement*			3

Minimum Credits Required	47	63
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\*General Education Requirements for this A.A.S. program are listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication established by the College to qualify for the Certificate of Achievement.

#### Fall 2000 Enrollment

Course ID	Current Enrollment	Maximum Enrollment
ELEC 30	22	22
ELEC 32	22	22
ELEC 50	19	24
ELEC 52	19	24
ELEC 93V	3	50

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Mikulski, Thomas B.      B.A., Licensed Journeyman Electrician  
Pang, Gordon              A.S., Licensed Supervising Electrician

#### **Program Advisory Committee:**

Richard Tanaka, Process and Environmental Engineer, Hawaiian Cement  
Carl Pflieger, Plant Manager, Frito-Lay of Hawaii, Inc.  
Ricky Almodova, Program Specialist, International Brotherhood of Electrical Workers, Local Union 1186  
Erwin Soares, Chief Engineer, Love's Bakery  
Shannon Sullivan, Chief Engineer, Hawaii Baking Co.

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Fashion Technology (FT)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The FT program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

The demand for the program is above the satisfactory level and has increased as the program began re-enrolling students in spring 1998 after a one-year stop out.

**Program Efficiency:**

This program's efficiency indicator fell below group satisfactory level as additional classes were offered in the major.

**Program Outcomes:**

The graduate per opening ratio increased to well above the satisfactory level as the students accepted to the program since the program stop out begin to graduate.

**Overall Health Summation:**

Program efficiency is expected to improve. Outcome and demand are above the satisfactory level and retention is above average at 86%.

**Program: FT**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	4.20	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	66%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	90%	41%

## Appendix A

### FASHION TECHNOLOGY (FT)

#### Program Description:

The Fashion Technology Program at HCC is one of 2 two-year A.A.S. Degree Fashion Programs in the community college system. The staff includes one full time faculty and lecturers when needed. The program offers a Certificate of Competence, Certificate of Completion, a Certificate of Achievement, and an Associate in Applied Science Degree.

#### Program Goals

The curriculum is designed to provide competency for a wide range of occupations in the fashion industry. Theoretical knowledge and practical skills are provided in clothing construction, pattern drafting and designing, textiles, fashion sketching, visual merchandising and various fashion retailing operations.

This broad background enables the student to select various occupations such as designer, custom dressmaker, pattern maker, assistant buyer, sales associate, storeowner or manager, and visual merchandiser. Cost for textbooks is approximately \$100- projects (\$50-\$200 per semester).

#### Program History:

The program was originally called Commercial Sewing when HCC was established in 1965, changed to Fashion Arts until 1975, and changed again to Fashion Design and Merchandising to echo UH Manoa's program title. Currently known as Fashion Technology (changed in the late 1980's to reflect a more timely emphasis), the program educates students who want to learn the fashion design/production and merchandising skills necessary to enter the industry. It also works closely with UH Manoa and other four-year institutions to help students transfer into the Baccalaureate programs of their choice.

After the 1975 program review, a Certificate of Achievement was introduced to allow the students a choice. For students entering Fall 1996 and later, the A.A.S. degree replaced the A.S. degree.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### Program Admission Requirements:

Any U.S. high school graduate or any person 18 years of age or over who can profit from the instruction offered is eligible for admission to the College, subject to the availability of resources.

Students are admitted into the program in the fall semester each year. The minimum qualifications for admission are:

- \*18 years or older
- \*a high school diploma or GED

	Certificate of Completion Credits	Certificate of Achievement Credits	Associate in Applied Science Credits
FT 28 Introduction to Industrial Sewing	3	3	3
FT 30 Basic Creative Design	3	3	3
FT 36 Draping		3	3
FT 40 Fabric Analysis	3	3	3
FT 43 Cutting Room Functions		3	3
FT 111 Art and Design in Fashion	3	3	3
FT 205 Clothing Construction Methods	4	4	4
FT 215 Flat Pattern making I	3	3	3
FT 216 Fashion Design and Sketching		3	3
FT 217 Flat Pattern making II	3	3	3
FT 237 Pattern Grading			3
FT 29 Textile Art		3	3
Fashion Technology Electives		9	9
ICS 100M Computing Literacy and Applications (Group B)			3
Other General Education Requirements*			12
Minimum Credits Required	22	43	61

\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

#### Flat Patternmaking Program

##### Prerequisites:

	Certificate of Competence Credits
FT 215 Flat Pattern making I	3
FT 217 Flat Pattern making II	3
FT 237 Pattern Grading	3

#### Cutting Room Functions

	Certificate of Competence Credits
FT 43 Cutting Room Functions	3
FT 28 Introduction to Industrial Sewing	3
FT215 Flat Pattern making I	3

#### Computerized Grading and Marking

##### Program Prerequisites:

##### FT 43 and 237 or demonstrated ability

	Certificate of Competence Credits
FT 43 Cutting Rm Functions	3
FT 237 Pattern Grading	3
FT 162 Computer Aided Grading and Marker Making	4

**Fashion Technology Electives**

A minimum of 9 credits of FT electives is required for the Certificate of Achievement and Associate in Applied Science Degree. The FT electives must be chosen from the following list.

FT 32	Advanced Apparel Design	3
FT 38	Draping and Design	3
FT 41	Apparel Design	3
FT 162	Computer Aided Grading and Marker Making	4
FT 90	Special Topics	3
FT 93V or	Cooperative Education	1-4
FT 193V	Cooperative Education	1-4

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
FT 111	23	30
FT 17	7	25
FT 193V	2	75
FT 205	19	25
FT 215	24	25
FT 237	14	18
FT 29	14	20
FT 36	13	25
FT 40	16	30
FT 41	14	20
FT 90	7	20
FT 93V	5	75

## Appendix C

### Program Faculty and Advisory Committee

#### Program Faculty:

Nagaue, Joy      Instructor

#### Program Advisory Committee:

Elsie Casamina-Fernandez, Elsie's Designs

Joy Graham, French Curve

Allan James, Hawaiian Heritage by Allan James

Karen Kamahele, Hilo Hattie

Maria Martin, No Ka Oi Producers

Carol Pregill, Hawaii Fashion Industry Association

Gail Rabideau, You and Me Naturally

Paula Rath, Paula Rath Designs

Wendy Rosen, X-Cel Hawaii, Inc.

Linda Salz-Goto, Bevlin

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Fire and Environmental Emergency Response (FIRE)**

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The FIRE program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand and it's demand indicator falls well above the group satisfactory level

**Program Efficiency:**

This program's class fit ratio well above group minimum level. The program consistently has students enrolled in the program.

**Program Outcomes:**

This program's graduation/openings ratio falls above satisfactory levels.

**Overall Health Summation:**

This program is doing well in other areas: demand and outcomes. Overall, it is a healthy program.

**Program: FIRE**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	4.23	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	88%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	56%	41%

## Appendix A

### FIRE AND ENVIRONMENTAL EMERGENCY RESPONSE (FIRE)

#### Program Description:

The Fire and Environmental Emergency Response program at HCC is a four-semester program, which prepares students for entry into employment in the Fire Service field as well as meeting the needs of the in-service professionals. Emphasis is placed on four basic areas of fire safety: Prevention and Inspection, Fire Control, Rescue and Emergency Medical, and Management and Administration. Students completing the program can earn a Certificate of Achievement or an Associate of Applied Science degree.

Cost of Textbooks is approximately \$100-\$250 per semester.

#### Program Goals

Courses are provided to meet the need of the in-service professionals as well as the needs of the student who is not employed by the Fire Service. This program is designed to prepare the student academically for the Fire Service Field, i.e., insurance adjuster, investigator, and safety and building inspector.

A student at Honolulu Community College, who completes 6 units of Fire and Environment Emergency Response college credits, may receive up to 6 elective units for completing basic recruit training for fire fighting as required by government agencies. In addition, the student may be eligible to participate in a cooperative work program that will allow up to a maximum of 6 units of elective FIRE credits for completion of this program.

An Associate in Applied Science degree is awarded to students who complete the General Education and FIRE requirements. A Certificate of Achievement may be awarded to students who complete 30 hours of the required and elective FIRE credits. Health and physical requirements vary with employers in the Fire Science field, so perspective students should seek advice before enrollment they have questionable impairments or impediments.

#### Program History:

The Fire Science Program at Honolulu Community College (HCC) began in 1967 as a statewide program in Fire Science.

The program, initially targeted at fire personnel, was formed in response to the adoption of minimal educational hiring and promotion standards by fire departments in the State.

The program remained in this mode until 1992-1993 when a complete revision of the entire curriculum was completed. The Fire Science Program modifications provided a more comprehensive program that includes a hazardous materials, wildland fire operations, emergency services, and aircraft crash and rescue. These program modifications were initiated to achieve national and statewide uniformity in course numbering, description and content. The curriculum at HCC was thoroughly modernized to reflect current technology and terminology. Certification is now available for many individual courses by several National and State administrative agencies.

By agreement with HCC, Maui Community College borrowed the Fire Science curriculum. In response to a neighbor island need for training, a distance education course was developed during 1995 and field-tested in the summer of 1995.

By action of the Chancellor of Community Colleges, the name of the program changed to Fire and Environmental Emergency Response effective spring 1996.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Enrollment

#### Program Admission Requirements:

Students may enter the program at either the fall or spring semester.

Program Prerequisite: English 22 or 60 or placement in English 100, and placement in Math 50/53.

<b>Program Prerequisites:</b> "C" or higher in ENG 22 or in 32 or in 60 OR Placement in ENG 100 Math 20B & C & D & E & F OR Placement in MATH 50/53	<b>Certificate of Achievement Credits</b>	<b>Associate in Applied Science Degree Credits</b>
<b>First Semester</b>		
FIRE 101                      Essentials of Fire Suppression	3	3
FIRE 102                      Fundamentals of Fire Prevention	3	3
FIRE 107                      Fire Fighting Tactics & Strategy	3	3
General Education Requirement (MATH 50)		3
General Education Requirement (Communications)*		3
<b>Second Semester</b>		
FIRE 202                      Fire Hydraulics		3
FIRE Electives	6	6
CHEM 105                      Environmental Chemistry		4
General Education Requirements*		3
<b>Third Semester</b>		
FIRE 203                      Intro to Hazardous Substances in Emergency Response		3
FIRE Electives	9	6
ENG 120                      Advanced Technical Writing		3
ICS 100                      Computing Literacy and Applications		3
<b>Fourth Semester</b>		
FIRE 111                      Management in the Fire Service	3	3
FIRE Electives	3	7
PHYS 51V                      Technical Physics		4
Minimum Credits Required	30	60

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
FIRE 100	20	35
FIRE 101	30	35
FIRE 101	23	35
FIRE 103	26	35
FIRE 107	16	35
FIRE 107	14	35
FIRE 117	21	35
FIRE 151	17	35
FIRE 154	9	35
FIRE 193V	9	75
FIRE 202	38	27
FIRE 208	22	35

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Rogers, Stacy      B.A., University of Hawaii

#### **Program Advisory Committee:**

Sam Danaway, Fire Protection Engineering Consultant, S.S. Danaway and Associates  
David L. Kaea, Training Chief, Federal Fire Training Division  
James Kalawa, Fire Chief, D.O.T., State of Hawaii, Honolulu International Airport  
Attilio Leonardi, Assistant Chief, Fire Department, City and County of Honolulu  
Jack Minassian, Fire Management Officer, Hawaii National Park  
Mark Lawler, Chief, Fire Protection, Hickam Air Force Base  
August Range, Coordinator, Hawaii State Fire Council

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Human Services Program (HSERV) EARLY CHILDHOOD OPTION**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The HSERV (EARLY CHILDHOOD OPTION) program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program demand indicator falls above the group minimum level. However, number of majors should be increased.

**Program Efficiency:**

As evidenced by this program's class fit ratio, this program's efficiency indicator fall above group satisfactory level.

**Program Outcomes:**

This program's graduation/openings ratio falls above group minimum level.

**Overall Health Summation:**

**Program: (HSERV) Early Childhood Option**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	1.72	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	84%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	28%	41%

## Appendix A

### **HUMAN SERVICES PROGRAM (HSERV) EARLY CHILDHOOD EDUCATION OPTION**

#### **Program Description:**

The Early Childhood Option within the Human Services Department prepares students to work in programs serving children from birth to age eight. Graduates may occupy a variety of roles including teacher, lead caregiver in infant programs, school age group leaders, nannies, family childcare providers, home visitors, parent educators and program directors. The option offers a Certificate of Competency (9 credits), Certificate of Completion (17 credits), Certificate of Achievement (33 credits), and Associate of Science Degree (66 credits). In addition, three of the core courses (ED 105, ED 110, and ED 131) meet the formal training requirements of the national Child Development Associate Credential and lead to the new CDA Certificate of Completion.

#### **Program Goals:**

The Associate degree follows the early childhood teacher education guidelines of the National Association for the Education of Young Children. It is competency-based and emphasizes a developmental approach to early childhood education. Courses include many opportunities to observe and participate in programs for children both in community settings and in the Children Centers on community college campuses.

#### **Program History:**

The Early Childhood Option was approved by the Board of Regents of the University of Hawaii as part of the Human Services Program in 1971. Until the mid 1980's, most early childhood students were working toward the national Child Development Associate (CDA) credential. The early childhood program at HCC provided field trainers and seminars for CDA candidates. In 1985, the National Association for the Education of Young Children became the sponsoring organization for the credential and announced that it would undergo significant modification. At about the same time, phasing out of the existing CDA training support at HCC was begun as the Provost convened a broad-based task force to make recommendations for redesign of the program. The focal point was to be children's centers established on Oahu community college campuses which would provide not only child care services for campus families, but, most importantly, training sites for the new early childhood teacher education program. The first children's center, Keiki Hauoli, had opened at HCC in 1981. In 1990 and 1991, the center program was expanded to include infants and toddlers. In August 1992, Alani Children's Center opened at Kapiolani Community College. A center at Leeward Community College opened in August 1993. The centers provide students with opportunities to observe and to participate in model programs for young children. In 1989 and 1992 program modifications consolidated the early childhood education courses and created two groups, the preschool group and infant-toddler group. Further refinements of the program are on going.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### Program Admission Requirements:

Any U.S. high school graduate or any person 18 years of age or over who can profit from the instruction offered is eligible for admission to the program, subject to the availability of resources.

#### CHILD DEVELOPMENT ASSOCIATE (CDA) PREPARATION

##### Certificate of Competency

COURSES	TITLE	Credits
ED 105	Introduction to Early Childhood Education	3
ED 110	Developmentally Appropriate Practices	3
ED 131	Early Childhood Development: Theory into Practice	3
Minimum Credits Required		9

The Certificate of Competency in Child Development Associate (CDA) preparation meets requirements for formal training for the CDA credential.

#### Early Childhood Education

##### CERTIFICATE OF COMPLETION

COURSES	TITLE	Credits
ED 105	Introduction to Early Childhood Education	3
ED 110	Developmentally Appropriate Practices	3
ED 196L	Beginning Child Development Laboratory	1
ED 196	Beginning Lab Seminar	1
ED 131	Early Childhood Development: Theory into Practice	3
ED 140	Guiding Young Children in Group Settings	3
Electives	(may be numbered 100 or higher)	3
Minimum Credits Required		17

##### The Certificate of Completion in Early Childhood Education Meets Requirements for:

Formal training for CDA Credential (ED 105, ED 110, ED 131)  
 12 credits ECE/CD (Child Development) for Lead Caregiver for Infant-Toddlers  
 9 credits ECE/CD beyond A.S. for Assistant Teacher  
 12 credits ECE/CD beyond B.S. or B.A. for Teacher in private early childhood programs licensed by the Department of Human Services (DHS).

##### CERTIFICATE OF ACHIEVEMENT

		Credits
	Certificate of Completion Credits	17
ED 215	Healthy Young Children	3
FAMR 100	Personal and Professional Development	3
FAMR 296	Working with People	3
ED 245	Child Family and Community	3
ED 191V	Practicum in Early Childhood	3
ED 151	Practicum Seminar	1
Minimum Credits Required		33

**Note:** To obtain the Early Childhood Education Certificate of Achievement, students must also demonstrate proficiency at ENG 22 and MATH 50 levels.

**EARLY CHILDHOOD EDUCATION**

<b>Associate in Applied Science Degree</b>	<b>Credits</b>
Certificate of Achievement Credits	33
A.A.S. Degree General Education Requirements*	15
Preschool Group OR the Infant-Toddler Group	18
 Minimum Credits Required	 66

\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates and must be numbered 100 or higher.

**Note:** Elective courses may be numbered below 100 and/or numbered 100 and above.

**The A.A.S. Degree Meets the Requirements for**

Teacher, Lead Caregiver, Teacher-Director, Director of a Private Preschool (1-2 years experience also required) in programs licensed by the State Department of Human Services.

Note: To obtain the Early Childhood Education A.A.S. degree, students must also demonstrate proficiency at the ENG 22 and MATH 50 levels.

Note: Students must meet the proficiency standards in communication at the ENG 22 level and computation at the MATH 50 level to qualify for the Early Childhood Education Certificate of Achievement and A.A.S. degree.

**Preschool Group**

<b>COURSES</b>	<b>TITLE</b>	<b>Credits</b>
FAMR 230 or FAMR 232	Human Development or Human Development II	3
ED 234	Observation and Assessment	2
ED 261	Preschool Curriculum I	3
ED 262	Preschool Curriculum II	3
ED 296 P	Preschool Child Development Lab	2
ED 296 C	Preschool Child Development Lab Seminar	2
Electives	(must be numbered 100 or higher)	3
	Preschool Group Credits	18

**Infant-Toddler Group**

<b>COURSES</b>	<b>TITLE</b>	<b>Credits</b>
FAMR 230 or FAMR 232	Human Development or Human Development II	3
ED 234	Observation and Assessment	2
ED 170	Introduction to Working w/Infant and Toddler	3
ED 296 I	Infant/Toddler Child Development Lab	2
ED 296 B	Infant/Toddler Child Development Lab Seminar	1
Electives	(must be numbered 100 or higher)	3
<b>Two of the following four courses:</b>		4
ED 270	Perinatal and Prenatal Development (2)	
ED 271	Working with Infants (2)	
ED 272	Working with One Year Olds (2)	
ED 273	Working with Two Year Olds (2)	
	Infant-Toddler Group Credits	18

**Note:** Consult your academic and/or program advisor for assistance in planning an education program for specific career goals.

**PACE (Professional and Career Education for Early Childhood)** workshops are geared to meet training and enrichment needs of early childhood practitioners on Oahu. Four core introductory courses of Honolulu Community College's Early Childhood Education program are offered in a non-credit workshop format of sixteen 3-hour class sessions each. The workshops can be taken in any order, at any time. Participants who complete all sixteen workshops in a course may apply for community college credit. PACE is accessible (workshops offered in various places on Oahu during the evening and on Saturdays) and flexible. For information on program, schedules, and registration, call PACE at 845-9496.

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
ED 105	28	35
ED 105	16	35
ED 110	20	35
ED 110	23	35
ED 110	13	35
ED 131	27	35
ED 131	24	35
ED 140	14	35
ED 151	12	15
ED 151	12	15
ED 158	21	35
ED 170	7	35
ED 191V	12	15
ED 191V	12	15
ED 196	7	10
ED 196	4	10
ED 196	4	10
ED 196	4	10
ED 196L	7	10
ED 196L	4	10
ED 196L	4	10
ED 196L	4	10
ED 199V	4	10
ED 215	30	35
ED 215	21	35
ED 234	33	35
ED 261	28	30
ED 261	24	30
ED 296B	4	6
ED 296C	4	6
ED 296C	4	6
ED 296C	5	6
ED 296I	4	6
ED 296P	5	6
ED 296P	4	6
ED 296P	4	6

Course ID	Current Enrollment	Maximum Enrollment
FAMR 100	23	35
FAMR 100	31	35
FAMR 133	21	30
FAMR 141	27	35
FAMR 230	32	35
FAMR 230	36	35
FAMR 230	32	35
FAMR 296	31	35
FAMR 296	33	35

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Buck, Linda, M.Ed.  
Buxton, Gaynel, B.A.  
Christensen, Doris, M.Ed.  
Gooch, Patricia, M.Ed.  
McGivern, Iris, M.Ed.  
Moravcik, Eva, M.Ed.  
Nakanishi, Miles, M.Ed.  
Nolte, Sherry, B.S.  
Takeuchi, Lisa, M.Ed.  
Uyehara, Cindy, M.L.I.S.

#### **Program Advisory Committee:**

Lana Antonelis, Director, St. Timothy's Children's Center  
Toni Farm, Deputy Director, Oahu Head Start  
Stephanie Feeney, Professor, Early Childhood Education, UH Manoa  
Deborah Ishida, Child and Youth Services Specialist, U.S. Army Pacific  
Charles Larson, Seagull Schools  
Christina Cox, Kama'aina Kids, Inc.  
Vilai Coates, Queen Lilioukalani Childrens Centers

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**HUMAN SERVICES (HSERV) COMMUNITY SERVICES OPTION**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The HSERV (COMMUNITY SERVICES OPTION) program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program demand indicator falls above the group minimum level. However, the number of majors should be increased.

**Program Efficiency:**

As evidenced by this program's class fit ratio, this program's efficiency indicator fall above group satisfactory level.

**Program Outcomes:**

This program's graduation/openings ratio falls above minimum levels.

**Overall Health Summation:**

**PROGRAM: HSERV (COMMUNITY SERVICES OPTION)**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	1.81	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	93%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	32%	41%

## Appendix A

### **HUMAN SERVICES PROGRAM (HSERV) COMMUNITY SERVICE OPTION**

#### **Program Description:**

In the Human Services Program, the Community Service Option provides training and education in core knowledge and skills at a paraprofessional level. The curriculum is based on an interdisciplinary approach that emphasizes social work, life span human development, family system theory and practice and incorporates the broad spectrum of human services. Students are also encouraged to develop a broad general education foundation to support their personal and professional development.

The goal of the program is to prepare students for careers with job titles of case aide, social service aide/assistant, case manager, outreach worker, drug/alcohol/residential/social counselor, elderly worker, juvenile detention worker, and child protective aide/home visitor. Paraprofessionals serve a diverse client population within a variety of settings. These settings include group homes, developmental disabilities and community mental health centers; child protective, family and youth agencies; early intervention and treatment programs; and programs concerned with alcohol and substance abuse, family violence, and aging.

The practicum component provides students an opportunity to apply theory to practice. It is at the practicum site that students acquire experiences that enhance their knowledge and skills specific to the field of practice (e.g. current street drugs, elder and child protective procedures, supervised home visits, case record keeping, and legal considerations).

The curriculum includes three human services core courses (FAMR 100, FAMR 230, FAMR 296) required in both A.A.S. options (Early Childhood and Community Service). These courses reflect generic student competencies as identified by system-wide human services faculty in 1989. Other core and elective courses for the Community Service Option are specific to the Community Service Option.

The Community Service Option offers a Certificate of Achievement (30 credits) and an Associate in Applied Science Degree (60 credits).

#### **Program Goals**

The goal of the program is to prepare students for careers with job titles of case aide, social service aide/assistant, case manager, outreach worker, drug/alcohol/residential/social counselor, elderly worker, juvenile detention worker, and child protective aide/home visitor. Paraprofessionals serve a diverse client population within a variety of settings. These settings include group homes, developmental disabilities and community mental health centers; child protective, family and youth agencies; early intervention and treatment programs; and programs concerned with alcohol and substance abuse, family violence, and aging.

#### **Program History:**

The Human Services Program was initiated in 1968 with federal funding (Head Start Supplementing Training, New Careers, and others) to provide training in a number of human services fields. In 1971, the UH Board of Regents approved the Program for Paraprofessionals in Human Services as an umbrella program with various options representing different paraprofessional careers. The following options were developed: Child Development Associate, Community Service, Corrections, Early Childhood Education, Educational Assistant, and Elderly Services. As federal funds decreased, the State assumed financial responsibility for the continued delivery of training and education. Thus, the need for six career paths did not seem justified. Consequently, the Human Services Program has consolidated its resources into two major options: Community Service and Early Childhood Education.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### Program Admission Requirements:

Any U.S. high school graduate or any person 18 years of age or over who can profit from the instruction offered is eligible for admission into the College, subject to availability of resources. Students are admitted into the program on a semester basis.

#### Community Service Option

The Community Service Option is designed for people interested in working as human service workers in diverse settings such as group homes, mental retardation and community mental health centers; family, child, and youth service agencies; and programs concerned with alcoholism, drug abuse, family violence, and aging. Field experience or work practicum is an important feature of this program in which a student has supervised work experiences in a community setting. The program offers a Certificate of Achievement and an Associate in Applied Science degree. (SEE SHARON OTA FOR CERTIFICATE OF COMPLETION REQUIREMENTS.)

COURSES	TITLE	Certificate of Achievement Credits	Associate in Applied Science Degree Credits
FAMR 100	Personal & Professional Development	3	3
FAMR 141	Parenting	3	3
FAMR 230	Human Development	3	3
FAMR 296	Working with People	3	3
HPER 195	Modern Health: Personal and Community	2	2
SOSER 21	Family Dynamics & the Social Work Interview	3	3
SOSER 55	Individual Counseling	3	3
SOSER 51	Practicum Seminar	1-2	2-3
SOSER 91V	Work Practicum/Community Service	3-6	6-9
SW 200	The Field of Social Work	3	3
General Education Requirements and Electives*			15-30
Minimum Credits Required		30	60

\*General Education Requirements for the A.A.S. degree is listed under Degrees and Certificates.

**Note:** Students must meet the proficiency standards in communication at the ENG 22 level and computation at the MATH 20B, C, and D level to qualify for the Community Service Certificate of Achievement and A.A.S. degree.

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
FAMR 100	23	35
FAMR 100	31	35
FAMR 133	21	30
FAMR 141	27	35
FAMR 230	32	35
FAMR 230	36	35
FAMR 230	32	35
FAMR 296	31	35
FAMR 296	33	35

Course ID	Current Enrollment	Maximum Enrollment
SOSER 21	31	30
SOSER 51	14	15
SOSER 51	7	15
SOSER 91V	16	15
SOSER 91V	12	15

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Ota, Sharon            M.S.W., A.C.S.W., L.S.W.

#### **Program Advisory Committee:**

Nathan Chang, Chair, Bachelor of Social Work Program, UH Manoa, School of Social Work

Paige Demecilio, Child and Family Service, Domestic Abuse Shelter Programs

Wendall Omura, Department of Human Services, Child Welfare Services, Assessment and Case Management Unit #2

Greg Tanida, Mental Health Services, Kaiser Permanente

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**BOAT MAINTENANCE AND REPAIR (MARMR)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The MARMR program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program’s demand indicator falls well below the group satisfactory level. The program has been in existence for more than five years. Initially, the Pearl Harbor apprenticeship program was a springboard for the program. With a change in direction, Pearl Harbor is no longer a source for students. As a result, the enrollment has significantly decreased. Efforts to advertise nationally have been carried out. Interest from these advertisements has shown some interest in the program.

**Program Efficiency:**

This program’s class fit ratio well below the group minimum level. The low enrolled classes will be monitored.

**Program Outcomes:**

This program’s graduation/openings ratio falls below minimum levels. The lack of students will challenge the number of students graduating.

**Overall Health Summation:**

The gradual decrease in demand/efficiency/positive outcome will be a challenge for the program to recruit more student majors. The success of the program will be dependent on developing partnerships with local marine-oriented industries. Advertising must continue to increase student enrollment. The program will continue to be monitored.

**Program: Boat Maintenance and Repair (MARMR)**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	0.96	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	37%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	17%	41%

## **Appendix A**

### **BOAT MAINTENANCE AND REPAIR (MARMR)**

#### **Program Description:**

The Marine Education and Training Center (METC) opened in 1995 and is a state-of-the-art training facility offering both credit and non-credit training in marine technologies. The facility is located on Sand Island on the island of Oahu.

The METC occupies over 30,000 square feet of training space under roof. This space features four large bays for training in joinery, composite tooling and fiberglass, coating systems, rigging, plumbing, and marine mechanical and electrical systems. One of two classrooms is designed as a drafting room for blueprint work. The METC also features a large external work area and a 180' pier equipped with both jib and telescoping cranes.

The total cost of tools, textbooks, and supplies for the two-year program is approximately \$1400.

#### **Program Goals:**

The Boat Maintenance and Repair program prepares individuals for employment in the marine service and manufacturing industries. Students who successfully complete the program will acquire the skills necessary for successful entry-level employment.

#### **Program History:**

The program began in 1995 in a new world-class facility at Keehi Lagoon and graduated its first students in 1997.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### Program Admission Requirements:

Any U.S. high school graduate or any person 18 years of age or over who can profit from the instruction offered is eligible for admission into the College, subject to availability of resources. Students are admitted into the program on a semester basis.

Program Prerequisites are placement in ENG 22/60 and in MATH 50/53.

#### Program Prerequisites:

**ENG 20B & C & D & E OR ESL 11 & 12 & 13**

**OR Placement in ENG 22/60**

**MATH 20B & C & D & E OR Placement in MATH 50/53**

**Associate  
in Applied Science  
Degree Credits**

#### First Semester

MARMR 20	Marine Nomenclature	1
MARMR 21	Boat Hauling Procedures	3
MARMR 23	Basic Hand Tools-Use and Nomenclature	1
MARMR 25	Introduction to Composite Technology	3
	Composite Repair Techniques	3
MATH 50	Technical Mathematics I	3/4
Or MATH 53	Technical Occupational Mathematics	

#### Second Semester

MARMR 29	Blueprint Reading for Marine Technician	2
MARMR 30	Woodworking I	3
MARMR 31	Yacht Joinery I	3
MARMR 33	Marine Finish Systems	4
PHYS 56	Basic Electrical Theory and Lab	4

#### Third Semester

MARMR 40	Marine Blueprint Reading and Lofting	3
MARMR 41	Yacht Joinery II	3
MARMR 42	Marine Propulsion Service and Maintenance	2
MARMR 43	Composite Tooling and Hull Construction	4
ENG 60	Technical Writing	3

#### Fourth Semester

MARMR 50	Mold Fabrication	3
MARMR 51	Composite Production	3
MARMR 52	Marine Electrical Systems	2
MARMR 53	Marine Plumbing	2
MARMR 54	Rigging	2
PSY 180	Psychology of Work	3
ICS 100T	Computer Literacy and Applications (Transportation)	3
Or ICS 100	Computing Literacy and Applications	
Minimum Credits Required		64/65

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
MARMR 20	6	24
MARMR 21	6	24
MARMR 22	6	24
MARMR 24	6	24
MARMR 25	6	24
MARMR 40	7	20
MARMR 41	6	20
MARMR 42	6	20
MARMR 43	6	20

## Appendix C

### Program Faculty and Advisory Committee

#### Program Faculty:

David Flagler	Professor, CC
Robert Perkins	Instructor

#### Program Advisory Committee:

Robert Airhart, Dist. Commanding Officer, United States Coast Guard Auxiliary  
Stacy Akana, President, Hawaii Marine Systems  
Barry Choy, Naval Architect, Choy Designs  
Frank Gibert, Foreman, Keehi Marine  
Walter Guild, Owner/Builder, Fiberglass Shop  
Robert Kennedy, Manager, West Marine  
Steve Lewis, Manager, Ala Wai Marine  
Wayne Miyashiro, VP, Senior Division Manager, Servco Marine Supply  
George Norcross, President, Epoxy Sales Hawaii, Inc.  
Chandler Rowe, General Manager, Plas-Tech, Ltd.

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**OCCUPATIONAL AND ENVIRONMENTAL SAFETY MANAGEMENT (OESM)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The OESM program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

Although the demand is in the lowest quartile, it is adequate to sustain an opening class both in the spring and in the fall.

**Program Efficiency:**

The class fit ratio is 44%, which is well below the minimum level. Given the smaller than average class size, retention is at 71% and non-traditional participation is 48%.

**Program Outcomes:**

The percentage of students graduated will remain low due to the average OESM major will take a minimum of 4-5 years to graduate. Over 90% of the majors are full-time employees who take one to two evening classes per semester.

**Overall Health Summation:**

Health indicators reflect program demand and efficiency below minimum levels and outcomes above the minimum level. We are continually monitoring demand majors and class size. Program is expected to remain small due to relatively small industry. However, OESM is unique program in the CC System and it fulfills a vital industry niche.

**Program: OESM**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	1.13	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	44%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	21%	41%

## Appendix A

### OCCUPATIONAL AND ENVIRONMENTAL SAFETY MANAGEMENT (OESM)

#### Program Description:

The two-year OESM Program is designed to provide training on safety and health in work settings. The curriculum offers a broad background on how environmental and occupational safety in the workplace are interrelated

Health and safety inspectors enforce and advise people on public health and safety regulations for work environment. They may work in environmental health and occupational safety and health. They must be able to work well with people, analyze and use facts, work with accuracy, have good eyesight, hearing and physical condition. The work can take place both indoors and outdoors. They often travel from one work site to another and work over 40 hours per week. Some inspectors may be required to climb, reach, or crawl, and the work environment may include noise, strong odors, extreme temperatures, and hazardous conditions.

#### Program Goals:

The Occupational and Environmental Safety Management program at HCC is a four-semester program, which provides training for students to function as paraprofessionals or technicians in the occupational and environmental safety and health, field. The curriculum offers a broad background on safety and health program administration, workplace hazard recognition/evaluation/control, workers' compensation principles, hazardous chemical risk assessment, and environmental management. . Besides an Associate Degree, the program offers a Certificate of Achievement.

#### Program History:

The Occupational Safety and Health (OSH) program proposal was approved by the Board of Regents in March 1975 and implemented in fall 1975, staffed by a single full-time instructor. The Program offered both an Associate Degree in Science and a Certificate of Achievement. The primary objective of the program was to provide the skills and knowledge necessary to perform certain occupational safety and health functions at the technician level. Other objectives included the provision of introductory courses for students in the other occupational majors at the College and the provision of courses suitable for upgrading of individuals presently employed in OSH.

During the 1980-81 academic year the program was thoroughly examined by the advisory committee and a special campus faculty committee. It was determined at that time that due to the nature of the employment in the OSH field and the associated responsibilities the program level needed to be raised. It was further determined that the Certificate of Achievement was inappropriate for this level of training. Subsequently, overlapping courses were eliminated; OSH course content upgraded to transfer level, and most program requirements were raised to transfer level.

During the 1980's the Program was operated without a full-time staff for several years. A full-time instructor was hired in the fall of 1991.

The OSH program went through another revision in the 1991-92 academic year. Program prerequisites and basic science & mathematics requirements were upgraded. Additionally, eight new classes covering the health and environmental aspects of the occupational safety and health field were included in the new curriculum. The OSH Program became a member of the Partnership for Environmental Technology Education (PETE) in 1991. PETE, primarily funded by the US Department of Energy and the US Environmental Protection Agency, is a consortium of over 60 community colleges from Arizona, California, Hawaii, Nevada, and Utah with a primary goal of fostering environmental health and safety education at the technician level. Six of the environmental technology classes added to the OSH Program were obtained through the contact with PETE member colleges. This will enable students who plan to relocate to a PETE college or pursue a Bachelor's degree in OSH or related field to smoothly transfer to a university that accepts these classes.

The name of the program was changed to Occupational and Environmental Safety Management (OESM) effective spring 1996.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### Program Admission Requirements:

Students may enter the Program at either the fall or spring semester. Program prerequisites are placement in ENG 100 and in MATH 27.

#### Program Prerequisites:

“C” or higher in ENG 22 or in 60 OR Placement in ENG 100

“C” in Math 25 or Placement in MATH 27/100/115

Certificate of  
Achievement  
Credits

Associate  
in Science  
Degree Credits

#### First Semester

OESM 101	Introduction to Occupational Safety and Health	3	3
OESM 106	Introduction to Environmental Health	3	3
CHEM 105	Environmental Chemistry	4	4
ENG 100	Expository Writing		3
BIO 100	Human Biology	3	3

#### Second Semester

OESM 102	Safety and Health Standards, Codes and Regulations	3	3
OESM 104	Occupational-Related Diseases	3	3
OESM	Electives	6	6
ICS 100	Computing Literacy and Applications		3

#### Third Semester

OESM 105	Introduction to Industrial Hygiene	3	3
OESM 210	Safety Program Management	3	3
OESM Electives		3	6
MATH 115	Statistics		3

#### Fourth Semester

ENG 209	Business & Managerial Writing		3
OESM 208	Techniques of Industrial Hygiene	3	3
OESM Electives		6	6
PSY 180	Psychology of Work		3

Minimum Credits Required	43	61
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**Note:** Students must meet the minimum proficiency standards in communication and computation established by the College to qualify for the Certificate of Achievement.

#### Fall 2000 Enrollment

Course ID	Current Enrollment	Maximum Enrollment
OESM 101	14	35
OESM 102	16	30
OESM 104	12	30
OESM 107	25	30
OESM 193V	4	50
OESM 208	13	30

## Appendix C

## **Program Faculty and Advisory Committee**

### **Program Faculty:**

Grove, Coulee C., MS, MPH

### **Program Advisory Committee**

Jim Beavers, Director of Safety, Hawaiian Electric Company

Pat Conroy, Manager, Risk Control Services, King & Neel, Inc.

Deborah Dunkle Kemp, CIH, Health & Safety Manager, OHM Remediation Services Corporation

Harlan Hashimoto, Ph.D., Environmental Compliance Administrator, Hawaiian Telephone

Rusty Niau, Human Resources/Safety, Grace Pacific Corporation

Jennifer Shishido, CIH, Administrator, Hawaii Occupational Safety and Health

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**REFRIGERATION AND AIR CONDITIONING (RAC)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The RAC program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand and it's demand indicator falls above the group satisfactory level.

**Program Efficiency:**

As evidenced by this program's class fit ratio, this program's efficiency indicator fall above group satisfactory level.

**Program Outcomes:**

This program's graduation/openings ratio falls above satisfactory levels.

**Overall Health Summation:**

This is a consistently strong and healthy program. Indicator data show good vitality over all.

**Program: RAC**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	3.8	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	94%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	112%	41%

## **Appendix A**

### **REFRIGERATION AND AIR CONDITIONING (RAC)**

#### **Program Description:**

The Refrigeration and Air Conditioning Technology program at HCC is a four-semester program, which prepares students for employment as refrigeration and air conditioning mechanics. Students completing the program may earn a certificate of achievement or associate of applied science degree.

#### **Program Goals:**

The program is designed to provide entry-level skills in the field of refrigeration and air conditioning technology. Topics covered include fundamentals of refrigeration, tools and materials, commercial systems, applied electricity, psychrometry and cooling load, air distribution and cooling systems. Technicians install, repair, service and maintain cooling equipment used in homes, schools and commercial buildings. They may work on equipment ranging from private home air conditioning systems and refrigerators to large, complex systems in plants and factories.

#### **Program History:**

The Refrigeration and Air Conditioning Program was one of the programs in operation at Honolulu Technical School when the Technical School was incorporated into the University of Hawaii through the Community College Act of 1964. This program is the only available such training offered in the State educational system.

In fall of 1987, the Refrigeration and Air Conditioning department modified the program by instituting program prerequisites.

Also implemented in the fall of 1987 were changes in the curriculum such as increasing the number of credits for RAC 27 (from 4 to 5 credits) and RAC 28 (from 2 to 5 credits) and rearranging courses for better program flow.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### PROGRAM ADMISSION REQUIREMENTS

Students are admitted into the program in the fall semester. Consistent with the College's open-door policy, students are provided entry into the RAC Program on first-come-first-served basis provided they meet the program prerequisites, which are Placement in ENG 22/60 and in MATH 50. Students who do not meet these prerequisites are classified as not eligible and are not permitted to enroll in the major courses.

<b>Program Prerequisites:</b>		<b>Certificate of Achievement Credits</b>	<b>Associate in Applied Science Degree Credits</b>
<b>Program Prerequisites:</b>			
<b>ENG 20B &amp; C &amp; D &amp; E OR ESL 11 &amp; 12 &amp; 13</b>			
<b>OR Placement in ENG 22/60</b>			
<b>MATH 20B &amp; C &amp; D &amp; E OR Placement in MATH 50</b>			
<b>First Semester</b>			
RAC 20	Fundamentals of Refrigeration	5	5
RAC 22L	Refrigeration Laboratory I	5	5
BLPRT 22	Blueprint Reading	3	3
MATH 50	Technical Mathematics I		¾
Or MATH 53	Technical Occupational Mathematics		
<b>Second Semester</b>			
RAC 23	Advanced Refrigeration	5	5
RAC 24L	Refrigeration Laboratory II	5	5
RAC 27	Electrical Fundamentals I	5	5
General Education Requirement (Communications)*			3
<b>Third Semester</b>			
RAC 28	Electrical Fundamentals II	5	5
RAC 41	Psychrometry and Cooling Load	5	5
RAC 42L	Air Conditioning Machinery Lab I	5	5
General Education Requirement Group A: (PHYS 51V)			4
<b>Fourth Semester</b>			
RAC 43	Air Distribution and Air Conditioning Systems	5	5
RAC 44L	Air Conditioning Machinery Laboratory II	5	5
General Education Requirement* (Rec: OESM 101)			3
General Education Requirement*			3
Minimum Credits Required			56
			69/70

\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Note:** Students must meet the minimum proficiency standards in communication established by the College to qualify for the Certificate of Achievement.

#### Fall 2000 Enrollment

Course ID	Current Enrollment	Maximum Enrollment
RAC 20	22	24
RAC 22L	22	24
RAC 28	24	25
RAC 41	24	25
RAC 42L	24	25
RAC 93V	2	50

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Oshiro, Derek M State of Hawaii Air Conditioning and Refrigeration Apprenticeship Graduate. Journeyman Refrigeration Pipefitter, Certificate Member in the Refrigeration Service Engineers Society. Assistant Professor

Tateishi, Allen A B.A., University of Hawaii at Manoa. Instructor

#### **Program Advisory Committee:**

John Arizumi, President/Owner, Carrier Hawaii  
Richard Mcilhenny, President/Owner, Trane Pacific  
Lester Nakata, President, Oahu Sales

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Sheet Metal and Plastics Technology (SMP)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The SMP program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program demand indicator falls above the group minimum level. However, number of majors should be increased.

**Program Efficiency:**

The Sheet Metal industry conducted an open recruitment for Sheet Metal apprentices between the fall and spring semesters. Several students opted to quit school and become indentured into the industry. The program efficiency is below satisfactory level.

**Program Outcomes:**

This program's graduation/openings ratio falls above minimum levels. Graduation rates will be monitored.

**Overall Health Summation:**

Because the Sheet Metal industry open recruitment was a one-time thing, the program class fit ratio should improve. The lack of an industry open recruitment and the continuation of the apprenticeship program at Pearl Harbor should allow the program class fit ratio to increase to a satisfactory level. The current need by industry has focused on only one year training. Students are encouraged to leave. Industry requires students to work after the first year program. The second year major is low and will be challenged in the years to follow.

**Program: SMP**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	1.88	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	57%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	52%	41%

## Appendix A

### SHEET METAL AND PLASTICS TECHNOLOGY (SMP)

#### Program Description:

The Sheet Metal and Plastics Technology program at HCC is a four-semester program, which prepares students for employment into the field of sheet metal as, advanced apprentices. Students completing the program may earn a Certificate of Achievement or Associate of Applied Science degree.

Sheet Metal workers assemble, install and repair products or equipment made of sheet metal. After selecting and marking the metal according to blueprints, they cut, shape and assemble the pieces using various tools and machines. They make and install ducts for air conditioning, heating and ventilating systems, metal items for kitchens, architectural metal work, outdoor signs and stamped metal roofing and siding. Technicians need mechanical ability and the ability to visualize three-dimensional objects from drawings. The growth potential is average both locally and nationally for the next few years.

#### Program Goals:

This curriculum is designed to qualify students for entry into the field of sheet metal as advanced apprentices. They will develop skills in fabricating air conditioning ducts; architectural metal work; welding and fabricating plastics and pattern development.

#### Program History:

Honolulu Community College's Sheet Metal Technology program (later renamed Sheet Metal and Plastics Technology) was one of the programs in operation at Honolulu Technical School when the school was incorporated into the University of Hawaii Community College System. After the Community College Act of 1964 the SMP program automatically became one of the community college programs of study.

An important cooperative relationship thus exists between the program and the Joint Apprentice Training Program. The department maintains the facilities and equipment used by the apprentice-journeyworker training.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Courses and Program Enrollment

#### Program Admission Requirements:

Any U.S. high school graduate or any person 18 years or over who can profit from the instruction offered is eligible for admission to the College, subject to the availability of resources.

		Certificate of Achievement Credits	Associate in Applied Science Degree Credits
<b>First Semester</b>			
SMP 20	Hand Tool and Machine Processes	4	4
SMP 21	Shop Problems	3	3
SMP 22	Fabrication Processes (Architectural)	4	4
SMP 23	Introduction to Surface Development	2	2
MATH 50	Technical Mathematics I	3/4	¾
Or MATH 53	Technical Occupational Mathematics		
<b>Second Semester</b>			
SMP 24	Advanced Fabrication Processes (Architectural)	4	4
SMP 25	Air Conditioning Fabrication	4	4
SMP 26	Pattern Development I	2	2
ENG 51	Technical Reading		3
WELD 19	Welding for Trade and Industry (for Non-majors)	3	3
<b>Third Semester (See Substitution note on the next page.)</b>			
SMP 41	Advanced Air Conditioning Fabrication		4
BLPRT 22	Blueprint Reading and Drafting		3
SMP 43	Pattern Development II		2
General Education Requirement (Group B)			3
General Education Requirement*			3
<b>Fourth Semester (See Substitution note below.)</b>			
SMP 44	Blow Pipe Fabrication		4
SMP 45	Advanced Fabrication (General)		4
SMP 46	Pattern Development III		2
SMP 49	Advanced Shop Problems		2
General Education Requirement*			3
Minimum Credits Required		29/30	62/63

\*General Education Requirements for the A.A.S. degree are listed under Degrees and Certificates.

**Note:** Students must also meet the proficiency requirements in communication established by the College to qualify for the Certificate of Achievement.

**Substitution:** If the College does not offer a third or fourth semester course in the normal sequence, Cooperative Education (SMP 93V) will substitute up to the credits of the required course(s) not scheduled.

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
SMP 20	24	24
SMP 21	24	24
SMP 22	24	24
SMP 23	24	24
SMP 41	8	24
SMP 43	8	24

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Danny Aiu          Instructor

#### **Program Advisory Committee:**

Clyde Fujimoto, Assistant Training Coordinator, Hawaii Sheet Metal Workers Training Fund

Earl Matsuda, President, Heide & Cook, Ltd.

Jeanette Monma, Treasurer, American Mechanical & Service Corporation

Mel Murakami, Administrator, Hawaii Sheetmetal Workers Training Fund

Michael Nouchi, President & Business Representative, SMWIA Local 293

Guy Shibayama, Training Coordinator, Hawaii Sheetmetal Workers Training Fund

Howard Tasaka, Business Manager & Financial Secretary, SMWIA Local 293

Harry Uyema, Executive Secretary, Sheetmetal Contractors Association

Rodney Yanai, President, Deluxe Sheetmetal Workers, Inc.

**PROGRAM REVIEW**

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**HONOLULU COMMUNITY COLLEGE**

**PROGRAM HEALTH INDICATORS**

**2000-2001 PROGRAM REVIEW**

**Welding Technology (WELD)**

Institutional Analysis Headquarters  
874 Dillingham Boulevard  
May 2001

**2000-2001 PROGRAM HEALTH INDICATORS  
HONOLULU COMMUNITY COLLEGE**

The WELD program has demonstrated the following with regard to program demand, efficiency, and outcome measures:

**Program Demand/Centrality:**

This program is consistently in demand but falls below the satisfactory level.

**Program Efficiency:**

As evidenced by this program’s class fit ratio, this program’s efficiency indicator falls well above the group satisfactory level.

**Program Outcomes:**

Both the program’s demand and program’s class fit ratios are high in the satisfactory level. With the ending of the stop-out cycle, the program’s graduation/openings ratio rose above the satisfactory level.

**Overall Health Summation:**

Many students enrolled in this program gain skills that allow them to obtain employment in the industry and leave school before they obtain a degree or certificate. The program was stopped-out two years ago when no students were admitted into the program. By educating the students as to the importance of obtaining a certificate or degree in the program and getting past the stop-out cycle of no students, the program’s graduation/openings ratio should return to a satisfactory level.

**Program: WELD**

Indices	Minimum Level	Actual Level	Satisfactory Level
<b>PROGRAM DEMAND/CENTRALITY:</b>			
Majors Per Program Opening	1.5	1.88	2.31
<b>PROGRAM EFFICIENCY:</b>			
Class Fit Ratio	59%	81%	71%
<b>PROGRAM OUTCOMES:</b>			
Graduates Per Opening Ratio	19%	120%	41%

## Appendix A

### WELDING TECHNOLOGY (WELD)

#### Program Description:

The Welding Technology program at HCC is a four-semester program, which prepares students for employment as entry-level welders.

The curriculum is designed to prepare the student for employment as a welder and welding technician. Training is given in both theory and practical skills in the various phases of welding and cutting.

#### Program Goals

The program is designed to provide knowledge and hands-on experience in all types of welding. Skills and knowledge will be gained in arc welding, plasma and air carbon arc cutting, oxyacetylene welding, TIG welding, MIG welding, gas metal and flux core arc welding, welding inspecting testing principles and fabrication techniques. The program is set up to enable the student to develop the skills and competencies for an entry-level welder as specified by the American Welding Society. Entry-level welders are employed in a wide range of industries that use welding and welding-related tasks. This range of industries includes small, medium, and large union and non-union facilities. Students completing the program may earn a Certificate of Achievement or Associate of Applied Science degree.

#### Program History:

The Welding Technology (WELD) program was one of the programs in operation at Honolulu Technical School when the school was incorporated into the University of Hawaii Community College System. After the Community College Act of 1964 went into effect, the school became Honolulu Community College and the WELD program automatically became one of the college's programs of study. The present WELD program offers the only such publicly supported curriculum on the island of Oahu.

The primary objective of the program is to prepare students for entry-level employment in the welding industry. To achieve this objective, the program maintains close ties with industry and government agencies to insure that its curriculum is as relevant as possible. In addition to its primary objective, the WELD program provides service to a variety of other technical programs where basic welding techniques are required as tools of the trade.

There has been a continuing student interest in the WELD program, and its support role to other vocational areas is vital. The enrollment and graduation figures indicate that the program is meeting its objectives, and projections indicate a continuing demand for qualified welders in industry.

Staffing and facilities are adequate for the present, with the WELD program occupying specially designed facilities in the trade/industrial complex. In the 1990s, the curriculum was upgraded to meet American Welding Society (AWS) standards and to modularize courses to make the curriculum more flexible and accessible to students who only need small pieces of the program.

## Appendix B

### Requirements for Program Admission and Program Degrees Program Course and Program Enrollment

#### Program Admission Requirements:

Any U.S. high school graduate or any person 18 years or over who can profit from the instruction offered is eligible for admission to the College, subject to the availability of resources.

		Certificate of Achievement Credits	Associate in Applied Science Degree Credits
<b>First Semester</b>			
WELD 52	Introduction to Arc I	3	3
WELD 54	Introduction to Arc II	2	2
WELD 56	Introduction to Arc III	2	2
WELD 58	Introduction to Arc IV	2	2
BLPRT 22	Blueprint Reading and Drafting	3	3
PHYS 55	Metallurgy and Plastics	4	4
<b>Second Semester</b>			
WELD 60	Advanced Arc Welding I	2	2
WELD 62	Advanced Arc Welding II	3	3
WELD 64	Advanced Arc Welding III	1	1
WELD 66	Plasma and Air Carbon Arc Cutting	1	1
WELD 21	Shop and Hand Tools	2	2
WELD 68	Blueprint Reading for Welders	3	3
MATH 50	Technical Math I		3/4
Or MATH 53	Technical Occupational Math		
<b>Third Semester</b>			
WELD 70	Oxyacetylene Welding I		2
WELD 72	Oxyacetylene Welding II		2
WELD 74	TIG Welding I		2
WELD 78	Fabrication Techniques		4
ENG 51	Technical Reading		3
<b>Fourth Semester</b>			
WELD 80	Gas Metal and Flux Cored Arc Welding		5
WELD 82	Welding Inspection Testing Principles		4
WELD 84	Advanced fabrication Techniques		
General Education Required		30	64/65
*General Education Requirements for the A.A.S. degree is listed under Degrees and Certificates			

**Fall 2000 Enrollment**

Course ID	Current Enrollment	Maximum Enrollment
WELD 16	8	25
WELD 19	19	25
WELD 19	9	25
WELD 52	30	25
WELD 54	30	25
WELD 56	29	25
WELD 58	29	25
WELD 70	18	24
WELD 72	17	24
WELD 74	10	11
WELD 74	10	11
WELD 76	9	11
WELD 76	10	11
WELD 78	21	25
WELD 99V	9	8

## **Appendix C**

### **Program Faculty and Advisory Committee**

#### **Program Faculty:**

Kim, Charles, S.C.            Graduate Apprentice, A.S., B.Ed.  
Lane, Jeffery, K.            Graduate Apprentice

#### **Program Advisory Committee:**

Glenn Eugenio, Training Coordinator, Ironworkers Training Officer, Local Union 625  
Melvin McDermott, Owner/Operator, Hawaiian Iron Craft  
Steven Padillo, Pearl Harbor Naval Shipyard  
Eugene Paris, Business Manager, Ironworkers Union Local 803  
Paul Remigio, Industrial Sales, Gaspro