

**KAPI‘OLANI COMMUNITY COLLEGE**

**COMPREHENSIVE INSTRUCTIONAL  
PROGRAM REVIEW**

2013-2016

**Respiratory Care Program - Associate in Science Degree**

**Mission Statement:** Kapi‘olani Community College provides students from Hawai‘i’s diverse communities open access to higher education opportunities in pursuit of academic, career, and lifelong learning goals. The College, guided by shared vision and values, and commitment to engagement, learning, and achievement, offers high quality certificate, associate degree, and transfer programs that prepare students for productive futures.

**Program Mission Statement**

**Respiratory Care Program Mission Statement**

- The mission of the Respiratory Care Program is to follow the Health Education Unit as well as to serve the needs of the Respiratory community through the program mission by:
  - 1) Providing a respiratory care practitioner program that will meet the respiratory care personnel needs of the State of Hawaii.
  - 2) To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).
  - 3) Providing advanced practitioner level respiratory care program.
  - 4) Providing a competency-based, success-oriented learning environment that is germane to local and national standards for the practice of respiratory care.
  - 5) Providing students with a relevant curriculum so that they may achieve their career and personal goals.
  - 6) Providing high quality faculty in the classroom, laboratory, and clinical areas.
  - 7) Providing continuing education programs for the respiratory care community

**Mission Statement of Health Professional Academic Programs:**

Develop and deliver student-centered health career programs that employ industry standards through partnerships with the healthcare community by:

- Offering credit and non-credit programs to provide competent and qualified personnel to meet the needs of the healthcare industry in Hawai‘i.
- Providing qualified learning opportunities for maintaining worker competence and career mobility in a rapidly evolving healthcare field, and delivering friendly, courteous, individualized and student-centered instructional and related support services that promote the likelihood of student success.

**Part I. Executive Summary of CPR and Response to previous Tactical Plans and ARPD initiatives**

The program’s goals supported the College’s Strategic Plan for 2008-2015 through four outcomes: 1) Outcome B, Invest in Hawaii’s Educational Capital, 2) Outcome C, Contribute to the state’s economy and provide a solid return on its investments in higher education through research and training, 3) Outcome D, address critical workforce shortages, and 4) Outcome E, Resources and Stewardship.

This report shows the number of student who completed and graduated with their ASRC degree. In addition, the program integrated student research projects into the curriculum which are presented to the campus community. The program responded to the availability of program clinical training sites and job placement concerns for graduates which arose from the closing of Hawai'i Medical Center in 2012. The main consequence of the closure was the loss of 20% of our clinical training facilities, there was also recognition that fewer RTs would be hired until the facilities were replaced or reopened.

The effect of the HMC Medical Center closure was that approximately 30-35 experienced RTs were displaced and flooded the job market leaving far fewer positions for inexperienced new graduates. Enrollment into the programs was reduced and the class size for the 2014 cohort that started in July of 2012 (class of '14) to 12 from the usual 16 students.

The program action plan for 2013-2014 was to track the opening of a new healthcare facility which opened June of 2014. The program increased to maximum accredited capacity (16 per annual) to keep pace with the expected increase in workforce data projections. The cohort size admitted in the summer of 2014 and 2015 returned to 16 students. The fall 2015 semester began with 31 active students in the program.

Students' critical care skills development is a vital component for graduates to be employable in the current health care market. To meet this objective, the program explored equipment options and a budget was developed to purchase and install of two new mechanical ventilators and lung simulation equipment and classroom technology upgrades in Fiscal Year 2012.

Program achievements 2013-2015:

- Received ongoing award recognition for RRT credentialing success by the Committee on Accreditation for Respiratory Care (CoARC).
- Obtained 10-year CoARC program re-accreditation in 2015.
- At least 70% of graduates employed for classes 2013-2015
- Approval of curriculum changes including two advanced core Respiratory Care courses leading toward a Bachelor of Applied Science degree from an existing articulation agreement with UHWO.

## **Part II. Program Description**

The Respiratory Care Practitioner Program is a physician-directed, nationally accredited, health science specialty, caring for patients with disorders of the cardiovascular and pulmonary systems. Students earn an **Associate in Science Degree in Respiratory Care**. The program at Kapi'olani Community College is the only accredited respiratory care program in Hawaii serving students throughout the state. The program prepares students for a career as a **respiratory care practitioner (RCP)**. It is also the career pathway to becoming a Registered Respiratory Therapist (RRT) along with other advanced credentials in respiratory care.

### **History**

The Kapi'olani Community College Inhalation Therapy Program was founded in the fall of 1971 with funding from a 5-year Allied Health Professions Grant. The program, discontinued in 1977, was resumed under the leadership of a professional respiratory therapy educator, as program director, in fall of 1979. The Respiratory Therapy Program, which accommodated new students every other Fall Semester, eventually received full accreditation by the Committee on Allied Health Education and Accreditation (CAHEA) in 1981. In 1990, the Respiratory Care Program and curriculum was redesigned and streamlined to accommodate new students every Fall Semester. The program was reaccredited in 1991 and 1996, and 2006. From 2007 to present the program has maintained full, ongoing, programmatic

accreditation under the standards of the major accrediting body of the Respiratory Care profession known as the Committee on Accreditation for Respiratory Care. In 2015, the program received a full ten-year accreditation as an advanced practice Associate in Science degree program in Respiratory Care.

### **Program Goals (2012 – 15)**

The Respiratory Care Program aligns its program goals with the Commission on Accreditation for Respiratory Care accreditation standards and the performance measures of the College's Strategic Plan.

**Goal One:** Strategic Outcome B: Hawai'i's Educational Capital. "B6B Provide active, rich and safe learning opportunities and environments that promotes engagement of students, faculty/staff and the outside community in learning and experiential activities that increase success in courses, and attainment of certificates/degrees and career goals."

The program's ARPD action plan addressed student skill attainment through experiential clinical placements - Perkins Indicator 1P1 Technical Skills Attainment. While the program met the 1P1 goal each year, faculty tracked the opening of a new healthcare facility, for additional placement locations. The West O'ahu site opened in June 2014 and the program increased to maximum accredited capacity (16 per annual) to keep pace with the expected increase in workforce data projections. The cohort size admitted in the summer of 2014 and 2015 returned to 16 students and is also the expected number for fall 2016. There are on average between 30 and 31 active students in the first and second year cohorts.

**Goal Two:** The program met the goal of "student placement" or Perkins Indicator 4P1, and using sophisticated simulation equipment, training, and clinical simulation experience to enhance graduate preparedness and be "work force ready" to assume full time positions in acute care within local Hawaii hospitals. The most recent data show the goal of 68% and the actual at 69%.

### **Program Student Learning Outcomes (SLOs):**

Upon successful completion of the A.S. degree in Respiratory Care the student should be able to:

1. To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs.)
2. Perform technical and clinical skills necessary to function competently as an advanced-level respiratory therapist.
3. Demonstrate professional & ethical behavior skills necessary to function as an advanced-level respiratory therapist.
4. Communicate & interact appropriately & effectively.
5. Incorporate knowledge of multicultural perspectives to meet the needs of diverse populations.

### **Admission Requirements:**

- Applications are accepted from April 1 to May 31 for the Fall Program. All materials (transcripts etc.) must be received by May 31st .
- Submit the application form to the KCC Health Sciences Office.
- Submit transcripts of college work and high school diploma \*
- Attend a Program Information/Orientation session.
- Complete prerequisite courses prior to Fall entry.
- Attend career shadowing as needed.

### **Selection to the Program:**

- Age 18 or older.

- Overall GPA of 2.0 or higher.
- Selection is based on a factoring system in which points are given in the following categories:
- Prerequisite course grades
- Previous college degrees
- Interview scores
- Reference letters

Applicants are ranked in numerical order by the total of the factors assigned in the selection criteria. Up to 18 applicants will be notified of their admission acceptability and will be asked to:

1. Confirm their intention to enroll in the program.
2. Purchase liability insurance prior to registering.
3. Complete technical standards assessment.
4. Attend the program orientation sessions.

### **Credentials, licensure and career pathways**

The career pathway begins with successful completion of the two-year Kapi'olani CC program where graduates will earn an **Associate in Science Degree in Respiratory Care** and are eligible to take the Entry-Level Examination of the National Board for Respiratory Care (NBRC). After passing the Entry-Level examination, graduates will be awarded the **Certified Respiratory Therapist (CRT)** credential. Upon earning the CRT credential, graduates are eligible to write the Advanced-Practitioner Examinations of the NBRC. Upon passing the two examinations, the individual will be awarded the **Registered Respiratory Therapist (RRT)** credential and are eligible to apply for licensing as a Respiratory Therapist with the State of Hawaii Department of Commerce and Consumer Affairs. The CRT and RRT credentials are recognized in the United States and several other countries. The CRT credential is required in approximately 49 states (including Hawaii) as part of eligibility for a license to work as an RCP. The RRT is the preferred credential in the Respiratory Care profession. It is also the credential that most hospitals in the state of Hawaii require for employment in Respiratory Care.

As a graduate of the KCC ASRC program, additional advanced credentials can be obtained by graduates through continuing non-credit education and work experience. These credentials include:

- Adult Critical Care Specialist (ACCS)
- Certified Pulmonary Function Technologist (CPFT)
- Registered Pulmonary Function Technologist (RPFT)
- Neonatal Pediatric Specialist (NPS)
- Sleep Disorders Specialist (SDS)
- Registered Polysomnographic Technologist (RGSPT)
- Certified Asthma Educator (AE-C)

There is also a career ladder offered via the **Baccalaureate Degree in Applied Science** through the Mananawai program with UH West Oahu for KCC students completing the A.S. degree in Respiratory Care.

### **Faculty and Staff**

There are four 11 month faculty teaching the program:

Aaron Koseki, PhD, RRT. - Professor  
 Ed Borza, BSRC - Associate Professors  
 Bob Vega, DM, RRT - Assistant Professor  
 Jun Kim, MS, RRT. - Assistant Professor

### **Resources, including Student Support Services:**

The Health Science and Emergency Medical Service programs are located in the Kaulia Building. The Respiratory Care Program has two classrooms dedicated to the program, each serving the first and second year cohorts. One classroom provides a lecture/laboratory space with practice equipment prior to clinical placements. Through Perkins grants the program was awarded funds to successfully maintain industry standard level equipment. The second classroom serves as a multi-purpose space for student access to computer for research purposes.

Upgrades of the décor, furnishings, and equipment of the two classroom/labs have been funded from money raised via grants and the Department of Labor TAACCCT Grant, in September of 2015. In addition, the program was awarded two Perkins Grants which are detailed below.

A Perkins Proposal was submitted and approved in 2015 to purchase the needed supplies and equipment as well as the need to hire an instructor for implementation and instruction of the new simulation equipment. The following key areas in laboratory equipment that are not meeting standards for training, were upgraded through the grant: the replacement of arterial blood gas training arms and replacement of computerized simulation exams (both hardware and software). In addition, with the continual advancement of critical care, and changes in basic competency standards for RRT practitioners, a neonatal/pediatric ventilator is essential for purchase for both lab practice and classroom demonstration.

#### **1. Innovative Technology Based Learning in Respiratory Care: \$139,688 award**

The award period for the project is from July 1, 2015 to June 30, 2016 and the award number for the project is: KAP2015/16(1)-TI-01 and should be referenced on all future correspondence and reports. These funds must be expended and good received by June 30, 2016. A completion report is due on October 10, 2016.

##### **Summary:**

Specifically, for the purpose of this proposal, the use of simulation equipment integrated with high-tech medical devices will allow for the hands-on technical training that strengthens applied learning, critical thinking, and decision making. Outcomes that are based on both simulation training and actual direct patient care are essential to assuring a high quality outcome-based program such as Respirator Care. Also, simulation training is encouraged as a means to meeting timely program objectives that cannot be accomplished solely with just direct patient care contact in the clinical setting. Finally, the addition of new RT simulation equipment and software will enhance the collaborative learning opportunities that can be pursued among other health professions and Health Science departments at KCC.

#### **2. Development of Online Program for Respiratory Care: \$113,242 award**

The award period for the project is from July 1, 2016 to June 30, 2017 and the award number for the project is: KAP2016/17(1)-TI-01 and should be referenced on all future correspondence and reports. These funds must be expended and good received by June 30, 2017. A completion report is due on October 10, 2017.

The field of Respiratory Care has adopted internet based and online courses. The online courses allows the field to provide educational opportunities for students that desire to either start a career in Respiratory Care, or expand their existing career through advanced degrees and credentialing. The Commission on Accreditation for Respiratory Care (CoARC) allows any accredited Associate degree program to provide 25% of its curriculum via online and other distance education modalities. Of the 400+ CoARC accredited programs in Respiratory Care in the US, only one is

fully accredited to provide a fully online program. However, local hospitals in Hawaii have policies in place that do not allow students to practice in their facilities if they are enrolled in fully online programs that do not provide clinical instruction/coordination. This proposal supports neighbor island students in obtaining their required education for professional credentialing in Respiratory Care utilizing distance education modalities and technology. CoARC is fully supportive of KCC adding distance education to its program.

The Respiratory Care program is supported by two full-time counselors imbedded in the Health Science and Emergency Medical Service Departments providing student support for all of the programs.

The Health Science Department has two supports with one Secretary II and one part-time Office Clerk. The Secretary II position is located in the main front office of the department and provides fiscal, clerical, and other support services to the department faculty and general public. This position is Civil Service position and part of the Hawai'i Government Employees Association organization, Unit 03. The half-time office clerk position supports the secretary in working with faculty and general public.

### **Community Connections:**

#### **Laboratory and Clinical Internship**

Students earning an Associate In Science degree are required to complete six courses with skill laboratory classes. The six courses are part of the 1320 hours required in clinical experience. This internship experience allows the students to apply the knowledge and skills learned in the laboratory to real life clinical settings set with a workforce environment. The Internships take place at the facilities listed below in the advisory board chart.

#### **Respiratory Care Program Advisory Committee 2016 (PAC)**

<b>Committee Member</b>	<b>Facility</b>	<b>PAC Role</b>
Aaron Koseki	KCC	KCC faculty
Abigail Kopf	STRAUB	Clinical Faculty
Arsenio Cachero	WAHIAWA	Clinical Faculty
Bob Vega	Program Director - KCC	KCC faculty
Brad Bransford	QMC	Manager
Brian Oka	COMMUNITY DME	Graduate
Bruce Alcaraz	STRAUB	Manager
Carol Agard	QMC	Manager
Carol Yoshimura	SLEEP	Graduate
Christine Fukui	MD	Physician
Clarence Rodrigues	KAISER	Co-Chair
Daniel Rausch	QMC	Clinical Faculty
David Chock	QMC	Clinical Faculty

Denise Wheatley	CASTLE	Clinical faculty
Diane Brenessel	QMC	Clinical Faculty
Diva Garcia	QMC - WEST	Manager
Dwight Watanabe	PALI MOMI	Clinical Faculty
Ed Borza	KCC	KCC faculty
Hajime Shimizu	KAP	Clinical Faculty
Jackie Scotka	PALI MOMI	Manager
Jasmine Karing	ALA	Public
Jo Ann Ikehara	PALI MOMI	Graduate
Jun Luga	KUAKINI	Graduate
Jung Kim	KCC	KCC faculty
Kim Nguyen	ALA	Public
Kimo Calhoun	KAP	Clinical Faculty
Gary Wong	CCOH	Manager
Nancy Mendoza	COMMUNITY DME	Public

<b>Committee Member</b>	<b>Facility</b>	<b>PAC Role</b>
Newton Wong	COMMUNITY DME	Public
Nhi Liu	QMC	Clinical Faculty
Patricia O'Hagan	KCC	KCC Dean
RaeAnn Ancheta	KCC	Student
Robert Berger	TRIPLER	Manager
Ron Baker	QMC	Clinical Faculty
Ron Sanderson	CASTLE	Manager
Rowan Gragas	KCC	Student
Rowena Acain	WAHIAWA	Clinical Faculty
Ryan Bellomy	KAP	Co-Chair
Sheila Kitamura	Dept Chair	KCC administration
Stephan Wehrman	HSRC Community	faculty
Stephen Kaya	QMC	Manager
Val Chang	COPD Assoc.	Public

Wendell Inouye	KULAMA MALAMA	Manager
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### Articulation Agreements

The career ladder offered via the **Baccalaureate Degree in Applied Science** through the Mananawai program with UH West Oahu for KCC is based on an articulation agreement for students completing the A.S. degree in Respiratory Care.

ASSOCIATE IN SCIENCE CURRICULUM, RESPIRATORY CARE (95 CREDITS) 2016-17									
Course	Title	Credits	Suggested semester						
General Education Requirements for Pre-Program (14 or 15 credits per semester or 29 total)			1	2	3	4	5	6	7
ENG 100 or ESL 100	Composition I	3	X						
MATH 100 or higher	Survey of Mathematics	3	X						
MICRO 130	General Microbiology	3	X						
KCC AS/AH	AS Humanities Elective (100 level or higher)	3	X						
PSY 100 or FAMR 230	Survey of Psychology	3	X						
Other Pre-Program Courses (14 credits)									
CHEM 100 or higher	Chemistry and Man	3		X					
HLTH 125	Survey of Medical Terminology	1		X					
MICRO 140	General Microbiology Laboratory	2		X					
ZOOL 141	Human Anatomy & Physiology I	3		X					
ZOOL 141 L	Human Anatomy & Physiology Lab. I	1		X					
ZOOL 142	Human Anatomy & Physiology II	3		X					
ZOOL 142 L	Human Anatomy & Physiology Lab. II	1		X					
Respiratory Care Courses (66 credits)									
RESP 100	Respiratory Care Profession	1	X						
RESP 101	Sciences for Respiratory Care	3	X						
RESP 200	Cardiopulmonary Pathophysiology	3		X					
RESP 201	Cardiopulmonary Anatomy and Physiology	3		X					
RESP 202	Clinical Practice I	5		X					
RESP 203	Respiratory Care Techniques I	3		X					
RESP 211	Introduction to Mechanical Ventilation	2			X				
RESP 212	Clinical Practice II	5			X				
RESP 213	Respiratory Care Techniques II	3			X				
RESP 218	Cardiopulmonary Pharmacology	3			X				
RESP 222	Clinical Practice III	5				X			
RESP 229	Advanced Cardiac Life Support	2				X			
RESP 300	Case and Disease Management in Cardiopulmonary Care	3					X		

RESP 301	Neonatal/Pediatric Respiratory Care	3						X		
RESP 302	Clinical Practice IV	4						X		
RESP 312	Clinical Practice V	4							X	
RESP 313	Current Concepts in Cardiopulmonary Care	3							X	
RESP 316	Cardiopulmonary Diagnostics	3							X	
RESP 320	Respiratory Care Seminar I	4							X	
RESP 322	Clinical Practice VI	4								X
Total Credits for AS Degree		<b>95</b>								
<i>The issuance of an AS degree requires that the student must earn a GPR of 2.0 or higher for all courses applicable toward the degree. Clinical Practice will be in affiliated community hospitals. A grade of "C" or higher must be maintained in all Respiratory Care courses in order for the student to continue in the Respiratory Care program. AS electives are listed on the "Degree and Certificate Programs" section.</i>										

### Program Accreditation:

The Commission on Accreditation for Respiratory Care (CoARC)]  
 1248 Harwood Road,  
 Bedford, TX 76021-4244      Phone: (817) 283-2835

The Associate in Science in Respiratory Care at KCC received its 10-year continuing accreditation certificate from CoARC on November 21, 2015. The program accreditation is valid through November 30, 2025. The program will be notified 2-years in advance to prepare for the next upcoming continuing accreditation self-study and site visit to occur in 2025.

### Part III. Curriculum Revision and Review

Program curriculum is reviewed every five years and revised on a similar schedule. The Respiratory Care Program incorporates upper division (300 level) in the final year of the program. Students may attend UHWO for elective courses in the pursuit of the BAS-RC. See the approved Course Grid below:

Listing of courses reviewed during the previous three years. A minimum goal of 20% of existing courses is to be reviewed each year.

Assessed in 2011/2012	PLSO 1	RESP: 302
Assessed in 2012/2013	PLSO 1	RESP: 100
Assessed in 2013/2014	PSLO 1, 2, 3, 4, 5	RESP 200, 201, 202, 203, 211, 212, 213, 218
Assessed in 2014/2015	PLSO 3,4 and 5	RESP: 302
Assessed in 2015/2016	PLSO 1, 2, 3, 4 and 5	RESP: 100, 202, 213, 222, 229, 301, 302, 312,
To be assessed in 2016/2017		RESP: 101, 201, 202, 203, 212, 213, 300, 313, 316, 320, 322,

The ASRC program underwent its 10-year continuing Program Accreditation Self Study and Site Visit during the Fall Semester, 2015. In preparation for the re-accreditation all Core Respiratory Care courses were assessed for appropriate curriculum content, program outcomes, and end of course student satisfaction. All courses have met satisfactory assessment. All courses within the ASRC core curriculum were reviewed prior to the November 2015 continuing accreditation site visit.

**Courses Assessed: September 2015**

<b>Program SLO</b>	<b>Courses</b>	<b>Notes</b>
Assimilate and apply relevant knowledge necessary to function competently as an advanced-level therapist.	All courses RESP 100, 101, 200, 201, 202, 203, 212, 218, 213, 211, 229, 222, 301, 302, 312, 316, 320, 322	Capstone courses are the final arbiter; RESP 320, 322. Final proof comes from results on National Board exams
Perform technical and clinical skills necessary to function competently as an advanced-level therapist.	All clinical courses RESP 202, 212, 222, 302, 312, 322	RESP 322 is the capstone clinical course
Demonstrate professional behavior skills necessary to function competently as an advanced-level therapist.	RESP 100, 202, 212, 222, 302, 302, 312, 320, 322	Clinical instructors and preceptors evaluate affective behavior daily, during Midterms and Finals in clinical courses offered each semester.
Communicate and interact appropriately and effectively	<b>RESP 100, 101, 201, 202, 212, 222, 301, 302, 312, 322</b>	Written and verbal communication is assessed in all these courses. All clinical courses require the student to communicate in written form (charting in the patient's electronic medical record) as well as verbally with other health care personnel.
Incorporate knowledge of multicultural perspectives to meet the needs of diverse populations.	All clinical courses RESP 202, 212, 222, 302, 312, 322	This is assessed in each clinical course in daily preceptor evaluations, Mid-term and Final instructor evaluations every semester.

**Annual Program Accreditation Report: Summary Percentages**

<b>Calculation</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>Goal</b>	<b>3 Year Averages</b>		
					<b>2015 - 2013</b>	<b>2014- 2012</b>	<b>2013- 2011</b>
Graduates (120 Total)	13	11	13	N/A	12	13	13
Attrition †	N/A	5.9	18.8	40 ‡	12.1	13.3	18.2
Positive Placement	84.6	100.0	92.3	N/A	91.9	97.4	92.5
CRT Credentialing Success	100.0	100.0	100.0	80	100.0	100.0	100.0
RRT Credentialing Success	100.0	100.0	100.0	N/A	100.0	100.0	100.0
Overall Employer	N/A	100.0	100.0	80	100.0	100.0	100.0

Calculation	2015	2014	2013	Goal	3 Year Averages		
					2015 - 2013	2014-2012	2013-2011
Satisfaction							
Overall Graduate Satisfaction	N/A	100.0	100.0	80	100.0	100.0	100.0
On-Time Graduation	100.0	100.0	92.3	70	97.2	92.3	90.2

[\*2016 not yet available. Data provided as part of the annual report for continuing accreditation by the Commission on Accreditation for Respiratory Care (CoARC)].

The ASRC program maintains a high standard of achieving CoARC outcome measure success as evidenced by receiving the annual CoARC award for assuring that at least 90% of the graduates obtain the RRT credential from the National Board for Respiratory Care (NBRC) within 3-6 months following graduation. This award has been given to the KCC ASRC program for the years of 2012, 2013, 2014 and 2015.

#### Part IV. Survey Results (also see external review in Part VI.)

- Self-assessment instruments are secured assessment exams provided by the accrediting and credentialing body for the profession to assist students in passing the national credential exams.
- Clinical evaluations by program faculty and clinical instructors assure clinical, psychomotor, ethical, communication, and multicultural competence. Final assessment is done 6 months to 1 year post-graduation per our accrediting standards.
- Employer surveys and graduate surveys show true outcomes of the education provided in the program.
- Employer Satisfaction Survey: Outcome 100% indicated graduates were rated above the benchmark, 2014.
- The program has been a recipient of a recognition award from the CoARC for distinguished success in credentialing of our graduates. The program has a 3-year average of 100% of graduates earning the RRT credential and is among the top 5% of programs in the nation.
- NBRC CRT Credentialing Exam: Outcome 100% pass rate 2014-2015. RRT Credentialing Exam: Outcome 100% pass rate for 2014-2015
- Graduate and Employer surveys: Outcome 100% Employers indicated satisfaction with professional behavior for 2014, 100% of graduates indicated same for the same period.
- Graduate and Employer surveys: Outcome 100% of Employers and graduates indicate satisfaction with communication skills c/o 2014-2015.
- Graduate and Employer surveys: Outcome All respondents (100%) on both surveys indicate satisfaction with multicultural knowledge.

#### Part V. Quantitative Indicators for Program Review

University of Hawaii 3 years of ARPD Report

**Link to 2013 ARPD DATA**

<http://www.hawaii.edu/offices/cc/arpd/instructional.php?action=analysis&college=KAP&year=2013&program=82>

**Link to 2014 ARPD Data**

<http://www.hawaii.edu/offices/cc/arpd/instructional.php?action=analysis&year=2014&college=KAP&program=82>

**Link to 2015 ARPD DATA**

<http://www.hawaii.edu/offices/cc/arpd/instructional.php?action=analysis&year=2015&college=KAP&program=82> ( see details of 2015 and comparison with 2013 and 2014 below)

**Overall Program Health: Cautionary**  
**Majors Included: RESP Program CIP: 51.0908**

Demand Indicators		Program Year			Demand Health Call
		12-13	13-14	14-15	
1	New & Replacement Positions (State)	18	12	11	<b>Unhealthy</b>
2	*New & Replacement Positions (County Prorated)	16	10	9	
3	*Number of Majors	26	27	30	
3a	Number of Majors Native Hawaiian	7	9	6	
3b	Fall Full-Time	50%	59%	53%	
3c	Fall Part-Time	50%	41%	47%	
3d	Fall Part-Time who are Full-Time in System	0%	3%	0%	
3e	Spring Full-Time	46%	60%	53%	
3f	Spring Part-Time	54%	40%	47%	
3g	Spring Part-Time who are Full-Time in System	0%	0%	0%	
4	SSH Program Majors in Program Classes	698	798	884	
5	SSH Non-Majors in Program Classes	52	0	4	
6	SSH in All Program Classes	750	798	888	
7	FTE Enrollment in Program Classes	25	27	30	
8	Total Number of Classes Taught	24	24	24	

Efficiency Indicators		Program Year			Efficiency Health Call
		12-13	13-14	14-15	
9	Average Class Size	9.3	10.1	11.3	<b>Healthy</b>
10	*Fill Rate	86.1%	84%	91.8%	
11	FTE BOR Appointed Faculty	3	3	4	
12	*Majors to FTE BOR Appointed Faculty	8.6	9	7.5	
13	Majors to Analytic FTE Faculty	8.1	8.4	9.3	
13 a	Analytic FTE Faculty	3.2	3.2	3.2	
14	Overall Program Budget Allocation	\$304,200	\$546,201	\$426,064	
14 a	General Funded Budget Allocation	\$249,288	\$463,782	\$426,064	
14 b	Special/Federal Budget Allocation	\$0	\$0	\$0	
14 c	Tuition and Fees	\$54,912	\$82,419	\$0	
15	Cost per SSH	\$406	\$684	\$480	
16	Number of Low-Enrolled (<10) Classes	12	12	12	
Effectiveness Indicators		Program Year			
		12-13	13-14	14-15	
17	Successful Completion (Equivalent C or	98%	93%	97%	<b>Healthy</b>

	Higher)			
18	Withdrawals (Grade = W)	4	12	8
19	*Persistence Fall to Spring	96.1%	86.2%	96.6%
19a	Persistence Fall to Fall	92.3%	72.2%	88.8%
20	*Unduplicated Degrees/Certificates Awarded	15	13	24
20a	Degrees Awarded	15	13	24
20b	Certificates of Achievement Awarded	0	0	0
20c	Advanced Professional Certificates Awarded	0	0	0
20d	Other Certificates Awarded	0	0	0
21	External Licensing Exams Passed	100%	100%	100%
22	Transfers to UH 4-yr	1	1	3
22a	Transfers with credential from program	1	1	2
22b	Transfers without credential from program	0	0	1

Distance Education: Completely On-line Classes		Program Year		
		12-13	13-14	14-15
23	Number of Distance Education Classes Taught	0	0	0
24	Enrollments Distance Education Classes	N/A	N/A	N/A
25	Fill Rate	N/A	N/A	N/A
26	Successful Completion (Equivalent C or Higher)	N/A	N/A	N/A
27	Withdrawals (Grade = W)	N/A	N/A	N/A
28	Persistence (Fall to Spring Not Limited to Distance Education)	N/A	N/A	N/A
Perkins IV Core Indicators 2013-2014		Goal	Actual	Met
29	1P1 Technical Skills Attainment	91.00	100.00	Met
30	2P1 Completion	47.00	78.57	Met
31	3P1 Student Retention or Transfer	75.21	95.24	Met
32	4P1 Student Placement	68.92	69.23	Met
33	5P1 Nontraditional Participation	17.50	57.45	Met
34	5P2 Nontraditional Completion	16.00	36.36	Met
Performance Funding		Program Year		
		12-13	13-14	14-15
35	Number of Degrees and Certificates	15	13	24
36	Number of Degrees and Certificates Native Hawaiian	3	1	7
37	Number of Degrees and Certificates STEM	Not STEM	Not STEM	Not STEM
38	Number of Pell Recipients	8	10	11
39	Number of Transfers to UH 4-yr	1	1	3

\*Data element used in health call calculation

Last Updated: October 7, 2015

## Part VI. Analysis of the Program

### 1. Alignment with mission

The mission of the Respiratory Care Program is to follow the Health Education Unit as well as to serve the needs of the Respiratory community through the program mission by:

- Providing a respiratory care practitioner program that will meet the respiratory care personnel needs of the State of Hawaii. **Aligned with PSLO 1-5.**
- To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs). **Aligned with PSLO 1-5.**
- Providing advanced practitioner level respiratory care program. **Aligned with PLSO 1-5.**
- Providing a competency-based, success-oriented learning environment that is germane to local and national standards for the practice of respiratory care. **Aligned with PLSO 1-5.**
- Providing students with a relevant curriculum so that they may achieve their career and personal goals. **Through the CoARC accreditation process all courses are reviewed as well as an annual review of selected courses. CoARC found that all courses were satisfactory assessment based on review in 2015.**
- Providing high quality faculty in the classroom, laboratory, and clinical areas. **Through the CoARC accreditation process the classrooms, laboratory and clinical areas are reviewed. CoARC found that all program facilities meet the expected standards for an accredited program.**
- Providing continuing education programs for the respiratory care community through the following strategies:
  - **1. Organize and provide comprehensive review classes for the CRT/RRT exams. Community members pay a fee for this**
  - **2. Organize and provide review classes for specialty credentials in Respiratory care e.g., NPS, AACCS)**
  - **3. Organize and provide seminars and conferences on respiratory care topics collaborating with the Hawaii Society for Respiratory Care**
  - **4. Act in a consultative role in providing subject matter expertise to neighbor island departments for respiratory care diagnostic and treatment modalities.**

### 2. Current Situation - Internal

#### A. Demand Indicators

The program remained healthy in the 2012 - 2013 report due primarily to the increase in the number of new and replacement positions in respiratory care within the health care community of the State and County. However, the demand indicators for 2014-2015 suggest an “unhealthy” level exists based on the number of job placement positions to the number of majors. This information appears to underestimate the demand rate for the following reason:

- The reported available positions in the state does not take into account the number of program graduate practitioners who leave the state for employment. This has the outcome of the number of majors underestimating the demand for the number of available workforce positions.
- The number of majors captures students who had enrolled in RESPI 100 but are not as yet been accepted into the program. This has since been corrected, see effectiveness comments.
- The number of students accepted into the program is limited by the accrediting body standards in relation to available clinical sites for the Respiratory Care program. Due to the clinical placement constraints, the program will maintain the number of accepted applications, see effectiveness comments.

- The program is required by accreditation to track the graduates' employment. The program data shows that between 11- 15 graduates become practitioners each year. Based on data provided by the local clinical affiliates that hire program graduates, there is an 80-90% job placement in the local Hawaii market.

Data from the US department of Labor (careerone stop: <http://www.onetonline.org/link/summary/29-1126.00#JobOpenings>) for years 2012-2020 shows an overall national job outlook for Respiratory Therapists and Technicians shows an annual job growth rate to be above average (15-21%) for the years 2012-2020. Employment specific for the two primary job titles (respiratory therapist, respiratory therapy technician) for Hawaii indicates a percent change of 17% in the job market each year for Respiratory Therapists with an annual job opening projection of 10 positions. For Respiratory Therapy Technicians, the data indicates a 18% change each year, with an annual job opening projection of 10 positions.

### B. Efficiency and Effectiveness Indicators

The program efficiency and effectiveness indicators show the program to be "healthy." The class fill rate has moved up slightly this year as compared to 2013 and continues to remain well above the 75% benchmark for a healthy program. This is also true for the ratio of faculty to students. In addition, the effectiveness measure of the number of degrees has increased dramatically and the fall to spring persistence is close to 96.6% with the fall to fall close to 90%. In 2014-2015 the withdrawal rate improved from 12 in the previous report to 8 in the current report. The reason for this was that an enrollment mistake was made allowing students to enroll in the first course of the core Respiratory Care program (RESP 100) who had not applied and been accepted to the program. The program has since worked with the Admissions office to clarify that only students accepted to the ASRC program can enroll in RESP courses.

### C. Perkins Core Indicators

All five core indicator goals were met showing that the program is functioning to meet the labor force demand as well as train students to become skilled practitioners.

### D. External Review:

CoARC Commission on Accreditation for Respiratory Care Program

### Resource Assessment Matrix (RAM) 2015 Chart

RESOURCE	PURPOSE (S) (Standard)	MEASUREMENT SYSTEM (MS)	DATE (S) MS	RESULTS AND ANALYSES
PERSONNEL RESOURCES	To ensure the program has sufficient number of effective laboratory, classroom, and clinical instructors. (2.06/2.10/2.11/2.13)	Student resource surveys	05/2016	<b>Effectiveness - students</b> 27/28 indicated above cut score. All respondents indicated satisfaction with teaching effectiveness above the cut score.
		Personnel resource surveys	05/2016	<b>Personnel</b> 9/9 indicated the same. <b>Clinical</b> area and staff availability. Personnel: all indicated numbers above the cut score.

FACILITIES	To provide adequate classroom, laboratory and accommodations to ensure effective instruction. (2.01)	Student resource surveys  Personnel resource surveys	05/2016  05/2016	<b>Facilities - all students</b> (28/28) rated facilities above the cut score of 3 or greater. The college has expanded the simulation suite and equipment on campus, simulation instruction is readily available to RC students as needed for both lab and clinical simulation exercises.  <b>All personnel</b> 9/9 rated the facilities about the cut score.
LABORATORY RESOURCES	To provide students with the equipment and exercises that will adequately prepare them for clinical practice. (2.01/4.08)	Student resource surveys  Personnel resource surveys	05/2016  05/2016	<b>Students:</b> (28/29) scored the amount of lab equipment at or above the cut score of 3 or greater. One student scored laboratory equipment a 2. We are able to maintain existing critical care equipment over the last couple year as well as mannequins, test lungs and other vital equipment. New simulation equipment and classroom space acquired for use within all the Health Science programs.  <b>Personnel</b> (9/9) were above cut score for equipment and supplies.
ACADEMIC SUPPORT RESOURCES	To support student needs for supplemental reading, electronic and print reference materials, and research and computer resources. (2.01/2.15/5.11)	Student resource surveys  Personnel resource surveys	05/2016  05/2016	Students (27/28) rated this above the cut score. The college continues to move forward with having more non-printed resources available for students through digital media, computer and web-based resources.  Personnel (9/9) rated above the cut score. Clinical faculty note that access to academic resources in the clinical setting is available via web based sources, and medical libraries. Various RC departments do make their resources available for student used during clinical rotations.
CLINICAL RESOURCES	To provide a sufficient variety of tasks and procedures for instruction to allow for student mastery of the program's required clinical competencies. (2.13/3.12/4.08/4.09)	Student resource surveys  Personnel resource surveys	05/2016  05/2016	All students (28/28) rated clinical resources above the cut score.  Personnel (9/9) rated clinical resources above the cut score
PRORAM SATELLITES ONLY	To ensure that resources, services, and faculty at the satellite campus(es) are adequate and equivalent to those on the main campus. (1.05/2.14)	Student resource surveys  Personnel resource surveys		1) N/A  2) N/A

### 3. Assessment Results of Program SLOs March 2016

#### Evidence of Industry Validation: The National Board for Respiratory Care (NBRC) Examinations.

Program SLOs	Expected Level of Achievement	Assessment Strategy/ instrument	Results of Program Assessment <sup>1</sup>	Plan for Improvement <sup>2</sup>
<p>Assimilate and apply relevant knowledge necessary to function competently as an advanced-level therapist.</p> <p>To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs)</p>	<p>80% on NBRC Certified Respiratory Therapist (CRT) Credentialing Exam</p> <p>80% on Registered Respiratory Therapist (RRT) Credentialing Exam</p> <p>At least 80% of returned employer surveys rating overall satisfaction 3 or higher on a 5-point Likert scale.</p>	<p>NBRC CRT Credentialing Exam</p> <p>RRT Credentialing Exam</p> <p>Employer Satisfaction Survey</p>	<p>100% pass rate for Class of 2010</p> <p>100% pass rate for Class of 2011</p> <p>100% pass rate for Classes 2013-2015</p> <p>100% of employers indicated graduates were rated above the benchmark 2013-2015</p>	<p>Continue to offer exam preparation and hands-on clinical as well as NBRC style testing in program</p>
<p>Perform technical and clinical skills necessary to function competently as an advanced-level therapist.</p>	<p>At least 80% satisfaction of clinical skills assessment</p>	<p>Graduate and Employer surveys</p>	<p>100% of employers indicated graduates were rated above the benchmark 2013-2015</p> <p>100% of graduates indicated that they were adequately prepared to perform as advanced-level therapists 2013-2015</p>	<p>Continue to survey and monitor</p>
<p>Demonstrate professional behavior skills necessary to function competently as an advanced-level therapist.</p>	<p>90% above cut score (&gt;2 on a 5-point Likert scale) on surveys</p>	<p>Graduate and Employer surveys</p>	<p>100% Employers indicated satisfaction with professional behavior 2013-2015</p> <p>100% of graduates indicated the same for the same period.</p>	<p>Continue to survey and monitor</p>
<p>Communicate and interact appropriately and effectively</p>	<p>90% above cut score (&gt;2 on a 5-point Likert scale) on surveys</p>	<p>Graduate and Employer surveys</p>	<p>100% of Employers and graduates indicate satisfaction with communication skills from surveys done in 2013-15.</p>	<p>Continue to survey and monitor</p>
<p>Incorporate knowledge of multicultural perspectives to meet the needs of diverse populations.</p>	<p>90% above cut score (&gt;2 on a 5-point Likert scale) on surveys</p>	<p>Graduate and Employer surveys</p>	<p>All respondents (100%) on both surveys conducted in 2013-2015 indicate satisfaction with multicultural knowledge.</p>	<p>Continue to survey and monitor</p>

### Part VII. Tactical Action Plan

<sup>1</sup> Results of program assessment: % of students who met the outcome(s) and at what level they met the outcome(s)

<sup>2</sup> Plan for Improvement: what will the program do to improve the results?

### **Program Action Plan**

#### 1. Improvement Strategies

- Develop distance education classes and neighbor island clinical rotations based on Perkins Grant award.
- Reinforce the need to continue the UH-West O‘ahu Bachelor degree articulation agreement.
  - 1) Explore other options for ASRC graduates to pursue advanced degrees in related health care disciplines.
- Work to increase student placement percentages.
- Continue to track annual data for CoARC accreditation reports.
- Continue to track and respond to clinical placement policy changes.

#### 2. Performance Measures

- The current action plan is to maintain the program skill attainment rate and better prepare student for clinical placements through simulation scenarios which are to be an integral part of the curriculum, see Perkins Indicator 1P1. Although the program has met its goal of "placement" for Perkins Indicator 4P1, the program will strive to be more effective and realize an increase of 5% cumulative over three years. Use of sophisticated simulation equipment, training, and clinical simulation experience will enhance graduate preparedness to assume full time positions in acute care within local Hawaii hospitals. In addition the use of new simulation equipment will allow Program faculty to maintain ongoing training to meet this objective through their annual continuing education programs.

### **Kapi‘olani Strategic Plan: (2015-2021)**

#### **1. Outcome 2 Hawai‘i Innovation Initiative: Productive Futures for Students, Faculty, and Staff:**

##### **(B)\* Improve distance education course success rates to 75%.**

The program will support distance education success rates through the 2016-17 Perkins Grant award. Since the ASRC program at KCC is the only accredited Respiratory Care in the state of Hawaii, there is a perceived need to expand educational opportunities for neighbor island students that may wish to apply to the program. Current program accreditation standards will allow for up to (24) semester credits of didactic coursework to be taught through distance education without a need to seek a substantive change approval for the program. Development of distance education coursework within the ASRC program at KCC will benefit neighbor island students by:

#### **Strategies**

- Developing distance education options, which currently do not exist for the ASRC program at KCC to address Perkins core indicators, 5P1, and 5P2.
- Reducing expense in travel and living accommodations needed for relocation to Oahu to complete the ASRC program.
- Enhance flexibility in scheduling coursework with other personal and professional responsibilities.
- Addresses Perkins Core Indicators 1P1, 2P1 and 4P1 student placement as part of the College benchmarks
- Distance educational options can also benefit other student groups in the south Pacific such as those in American Samoa; which KCC does have an articulation agreement in place.
- Invite new members to the Advisory Board to expand support to the program.

**(N)\* Increase the number of sustainability designated course sections from 27 to 60 and develop "Pathways to UH 4-year Campuses."**

The program has had an MOA with UHWO for completion of a BSRC and/or Argosy University. The program director and unit dean will seek to maintain the MOA and explore other advanced degree options for ASRC graduates.

**(P)\* Implement the KELA model and complete two cycles of program learning assessment (2016, 2019) and report on two cycles of course learning assessment (2016, 2021).**

The program faculty completed the PSLOs assessment and reported the course learning assessment in the CoARC accreditation reports. A second cycle will be completed by 2019 and 2021 respectively.

**Assessment Cycle Plan:**

To be assessed in 2016/2017	RESP: 101, 201, 202, 203, 212, 213, 300, 313, 316, 320, 322,
To be assessed in 2018-2019	RESPI 100
To be assessed in 2019-2020	RESPI 200, 211, 218, 222, 229
To be assessed in 2020-2021	RESPI 301, 302, 303, 312

1. Data to be gathered:
  - Annual Program Review: OFIE Tracking, Data for CoARC accreditation reports.
  - Work to renew a signed MOA with UH-West O‘ahu and Argosy University.
2. Positions Responsible:
  - Unit dean, department chair, program director, clinical director, counselors, faculty, OFIE, Staff, UHWO administrator.
3. Synergies with other programs, units, etc.
  - OFIE, UHCC System/CTE/Perkins Initiatives, CELTT, other Health program, Pathways, etc.
4. Key Community Partners:
  - Advisory and clinical placement partners (see advisory board members)
  - Compliance officers at hospitals, community health centers.

**Part VIII. Resource and Budget Implications**

- Professional Developments - Distance Education; Perkins was awarded to sustain the DE outcomes will require instructors with distance education training and course design.
- Technology Infrastructure - Adopt and/or upgrade the existing learning management system - Lulima to integrate with online curriculum that is web based (Moodle/Canvas).

**Next three years to meet the above strategies:**

To meet the demand of workforce training, the equipment used to train students must meet industry standards. The bulk of the program equipment currently meets those standards and is also incorporating simulation scenario training to address the squeeze in clinical space and clinical preceptor availability.

Currently, the program is fully staffed with four full time faculty members and does utilize additional preceptor support from local clinical facilities to meet the need for real time clinical instruction of

standards of care practiced within the local community. A 2016-17 Perkins grant will provide additional funding necessary to assure that sufficient professional resources are available to develop online courses, and to deliver these courses through the learning management system that is currently part of the KCC program. The addition of non-traditional education will enable graduates on neighbor islands to seek employment. This should address the Perkins core indicators for 4P1 and 5P1/5P2, for student placement and non-traditional participation.