



# SKYLINE CPR Report

## SKY Dept - Respiratory Care

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# Program Information

## Assessment Unit Information

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**Program Type**

Instructional

**Division**

Science, Technology, Engineering and Math (STEM)

**Assessment Contact**

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**Comprehensive Program Review**

2022 - 2023

**Program Review Update**

Fall 2025, Fall 2027

# SKY Instructional Comprehensive Program Review

2022 - 2023

## Instructional Comprehensive Program Review

**Submitter Name:**

Heather Esparza

**Submission Date:**

04/03/2023

### BACKGROUND

**1.A. DIVISION:**

Science, Technology, Engineering, and Mathematics (STEM)

**PROGRAM NAME:**

Associate and Bachelors in Respiratory Care

**1.B. YEAR OF REVIEW:**

2022-2023

**1.C. PROGRAM REVIEW TEAM**

Brian Daniel, Ray Hernandez, Beatriz Qura Del Rio, Anrey Bartoszynski, Jing Folsom, Katie Sabato, Krystal Craddock, Kimberly Trotter, Nadia Tariq, Bianca Rowden-Quince, Ame Maloney, Karen Wong, Jesse Raskin, Tricia Murajda, Jessica Hurless and Maria Norris

**1.D. CONNECTIONS TO THE COLLEGE MISSION/VISION/VALUES:**

**i. Describe the program, its purpose, and how it contributes to Skyline College's Mission, "To empower and transform a global community of learners."**

The Respiratory Care Program is committed to empower and transform a global community of learners and offers two degrees that are relevant to entry level employment and advancement in the profession of Respiratory Care.

The Associate of Science in Respiratory Care is aimed to train competent entry level Respiratory Care Practitioners (RCP) capable of providing patient care by demonstrating competency in the cognitive, psychomotor, and affective learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs). Students completing the program are successful in obtaining required industry credentials for California licensure and obtain gainful employment as Respiratory Care Practitioners (RCPs).

The Bachelor of Science in Respiratory Care builds upon competence of entry into practice and allows graduates of AS degree Respiratory Care programs and licensed Respiratory Care Practitioners (RCP) a pathway to complete their four-year degree without having to transfer to a four-year college or university. The curriculum provides education for professional advancement opportunities in respiratory critical care, respiratory case management, respiratory neonatal/pediatrics, health education in respiratory care, research methodology, quantitative principles, respiratory care sleep medicine, and respiratory care leadership and management. Respiratory Care Practitioners hold responsibilities formerly conducted by physicians requiring a greater level of critical thinking and analytical skills.

Both program tracks are accredited by the Commission on Accreditation for Respiratory Care (CoARC) and curriculum and training are aligned with accreditation current industry standards.

# SKY Instructional Comprehensive Program Review

## ii. Alignment with the College Values:

Open Access, Student Success and Equity, Academic Excellence, Community Partnership  
**For each chosen Value, provide a concrete example of how each connects to your program.**  
The Respiratory Care Programs embody and practice many of Skyline College's values.

**Open Access:** Both programs employ a separate application process for entry. Each program only requires minimum required application elements that are required by ACJCC, CoARC, or state standards. No elements such as GPA, work experience, or course recency completion are used to select students from the application pool. If there are more applications than the number of seats, then a lottery is employed. This provides for an equitable and diverse selected pool that is able to enter the program. Student demographics demonstrate equitable access to these programs.

**Student Success and Equity:** Each program employs a cohort model. Program faculty and staff work diligently to foster community and employ case management strategies to support individualized student success. For example, each program track has a faculty lead who connects with each student at the beginning and through the program to support their success. The lead works with each student in the first semester of the 2 year program to identify needs and helps to individualize support. Students receive a program handbook that discloses aligned accreditation and college policies, procedures and expectations written with a student's first equity minded framework. Both programs are also delivered in a 2 year schedule so students have a clear pathway for completing courses and requirements to achieve their awarded degree in a timely manner.

**Academic Excellence and Community Partnership:** The Respiratory Care Programs develop and administer curriculum that is aligned with accreditation standards and industry input. This is done through an active community advisory board and includes industry partners. Program staff also take active roles regionally and statewide within the profession serving in positions with the Respiratory Care Board of California (RCB), the California Society for Respiratory Care (CSRC), and the California Thoracic Society (CTS). Many faculty also provide their experience and knowledge as lectures and expert consultants in the region, state, and beyond. The programs also maintain community partnerships with many hospital organizations in San Francisco and San Mateo Counties and across the bay allowing students to have quality work based learning opportunities supporting competency and readiness to enter the workforce. The Associate track provides students over 800 hours in the clinical setting with a culminating internship that helps transition our students to practitioner employees.

## 1.E. PROGRAM PERSONNEL

### i. Provide the current Full-Time Equivalent (FTE) of each category of personnel:

**Full-time Faculty FTE:**

2

**Adjunct Faculty FTE:**

1

**Classified Professionals FTE:**

1.12

**Manager/ Director FTE:**

0.5

**Dean FTE (if applicable):**

0.4

**ii. Describe any changes in staffing since the last CPR, and how the change(s) have impacted the program. Are there any unmet needs in the program pertaining to program personnel (e.g. staffing, schedule limitations, turnover)? If yes, please specify.**

Both program tracks employ sufficient full time and part time faculty to deliver effective instruction. There has been turnover with the Director of Respiratory Care and Allied Health which has impacted the stability of leadership oversight and support for both the AS and BS tracks of Respiratory Care. A new Director has commenced as of January 2023. The new Director is a local practitioner who is a graduate of both program

## SKY Instructional Comprehensive Program Review

tracks and has provided patient care and administration leadership in the San Francisco Bay Area community. She is acclimating to the role and will serve as CoARC required ASRC Program Director, and provide leadership direction and support for both the AS and BS program tracks.

The full time faculty for the BSRC program continues to receive 20% coordination to serve as CoARC required BSRC Program Director, support programmatic functions, case manage students. She continues to receive leadership support from the Director of Respiratory Care and Allied Health.

Both programs are supported by classified professional support through the Respiratory Care Program Services Coordinator (RCPSC). The role provides administrative support to the Director of Respiratory Care and Allied Health and BSRC Faculty Coordinator. RCPSC also directly works with students to support success from application to licensure process. This role serves as a great support asset to the programs, it's personnel, and success for it's students.

The college has recently approved a permanent 0.48 simulation laboratory coordinator. This classified professional support will coordinate the simulation lab, maintain the specialized sophisticated simulation equipment, and support development of simulation scenarios. These simulations will provide life like patient care scenarios integrated into instruction supporting student preparation and competency for workforce demands.

### **1.F. PROFESSIONAL DEVELOPMENT**

**i. Summarize key professional development that the program personnel have engaged in since the last CPR to meet both the mission of the program, and the aim of the College to increase equity.**

All licensed practitioners who teach in Respiratory Care are required to complete 30 contact hours every 2 years to maintain California licensure. Each faculty member individualizes their professional development content areas based on their areas of specialty and assigned instructional courses.

The ASRC Program Director facilitates monthly meetings with program faculty and staff to review course instruction and student progress across the curriculum. Faculty work collaboratively throughout the academic year to share best practices and model assignments that can be shared across the curriculum as students learn, scaffold, and build towards knowledge and skill competency.

The BSRC Program Faculty Coordinator conducts professional community of practice meetings once a term. The meetings are focused on addressing timely issues in administering programmatic function, case managing students and allow opportunity to engage supporting integration of equitable practices to support success for all students. The program also conducts a professional development day yearly in which faculty and staff are able to work on pedagogical changes at the course and program level aimed at integration of equitable practices. This includes syllabus equitable language, program and assignment rubrics, continued collaborative assignments between paired courses, and standardized canvas shells.

**ii. Are there any unmet needs pertaining to professional development, and potential ways to address these unmet needs? Please specify.**

Faculty are provided the opportunity to attend conferences through faculty professional development funds. The Director of Respiratory Care and Allied Health cannot access these funds. A budget can be institutionalized to ensure attendance of the State and National conferences.

There is not currently an identified institutionalized budget for the BSRC community of practice meetings or the professional development days identified 1-2 times per year for adjunct faculty to attend. These critical professional development structures need an institutionalized budget to support continued student success.

# SKY Instructional Comprehensive Program Review

## CURRENT STATUS

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### **2.A. ACHIEVEMENTS**

**Describe the program's achievements since the last CPR.**

The programs have completed the following since the last CPR:

A full time BSRC Faculty Coordinator was hired in Fall 2020

The BSRC Program received full initial CoARC accreditation in 2021

The ASRC Program completed it's 10 year onsite CoARC accreditation review and received continuing accredited status

The ASRC Program has received the CoARC Success in Credentialing Award consecutively for the past 5 years

### **2.B. IMPACTS ON PROGRAM**

**Describe the impacts on your program (positive or negative) by legislation, regulatory changes, accreditation, grantors, community/school partnerships, college-wide initiatives, stakeholders, and/or other factors.**

ASRC: Application and enrollment for the entry into practice program continue to be strong. The COVID pandemic put Respiratory Care Practitioners at the forefront of healthcare service providing for higher visibility of the profession. Program faculty and staff will take the opportunity to modify marketing materials and integrate this narrative into recruitment strategies.

BSRC: We have seen application and enrollment decline over the past 5 years. One contributing factor is ACJCC requires 40 upper division units for a Bachelor degree award regardless of lower division units students have already completed towards the 120 unit minimum. This is a degree advancement program for students who have already completed an ASRC degree. Most health care students completing this degree at this juncture have accumulated 100 units. ACJCC is the only regional accreditation body that specifically identifies the upper division unit minimum to award a Bachelor's degree. Other regional accrediting bodies do not. As such many students are looking elsewhere outside the state where they have to complete less units to achieve their Bachelor's degree. Compounding this issue California regulation is requiring completion of lower division CSU or UC general education. We are seeing California ASRC program graduates seeking degree completion programs outside the state such as Boise State or Kansas University. Both these programs offer degree completion with less lower division GE and upper division units.

The state has approved four other community college bachelor degree programs across California. Two are in the Bay Area, one in the Central Valley, and two in Southern California. This can have a dilution impact on potential California applicants further exacerbating application and enrollment trends. The program will work to identify pipeline and marketing strategies to increase enrollment.

## ACCESS

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### **3.A. PROGRAM ENROLLMENT**

**What enrollment trends do you observe, and what may account for these trends?**

ASRC: Program enrollments continue to be strong for the ASRC program. Each Fall one cohort of 25 students is accepted. Each cycle we have well over 100 applications. The program utilizes an equitable lottery process to identify entrants each year. Enrollment capacity is limited by CoARC accreditation and what our clinical sites can support.

BSRC: Enrollment capacity is limited by CoARC accreditation. We have seen application and enrollment decline over the past 5 years. One contributing factor is ACJCC requires 40 upper division units for a Bachelor degree award regardless of lower division units

## SKY Instructional Comprehensive Program Review

students have already completed towards the 120 unit minimum. This is a degree advancement program for students who have already completed an ASRC degree. Most health care students completing this degree at this juncture have accumulated 100 units. ACJCC is the only regional accreditation body that specifically identifies the upper division unit minimum to award a Bachelor's degree. Other regional accrediting bodies do not. As such many students are looking elsewhere outside the state where they have to complete less units to achieve their Bachelor's degree. Compounding this issue California regulation is requiring completion of lower division CSU or UC general education. We are seeing California ASRC program graduates seeking degree completion programs outside the state such as Boise State or Kansas University. Both these programs offer degree completion with less lower division GE and upper division units.

Current program scheduling admits students once a year in a cohort model and requires students to enroll full time (12 units per semester). Potential students are already working as healthcare providers and many are seeking work/school/life balance when considering further education opportunities. The program is looking into how to restructure scheduling patterns so students can enter at any given term and choose a schedule that may work for them. Considerations would include open rolling application process, transcript review, prerequisite course patterning, and assignment and pedagogy elements between paired courses.

The state has approved four other community college bachelor degree programs across California. Two are in the Bay Area, one in the Central Valley, and two in Southern California. This can have a dilution impact on potential California applicants to Skyline's BSRC program, further exacerbating application and enrollment trends. The program will work to identify pipeline and marketing strategies to increase enrollment.

### **3.B. EQUITABLE ACCESS**

**Provide an analysis of how students, particularly historically disadvantaged students, are able to access the program. Specific questions to answer in your response:**

**i. PROGRAM ACCESS: How do your program enrollment demographics compare to that of the College as a whole and/or Division? What differences, if any, are revealed? What program, institutional, and/or external factors may have impacted equitable access, whether positively or adversely?**

ASRC: The program is impacted and uses a special application to enter a new cohort each Fall. Entering cohorts are consistently diverse as a result of minimized barriers in the application and selection process. No elements such as GPA, work experience, or course recency completion are used to select students from the application pool. If there are more applications than the number of seats, then a lottery process is employed providing students equitable program access.

Most ethnic demographics percentages mirror between the program and college. However there is a 14% over-representation with Filipinos and a 13% under-representation with Hispanic/Latinos. The program has worked to minimize unnecessary barriers in the application and selection process. Clinical placements do require social

## SKY Instructional Comprehensive Program Review

security run background checks and drug testing in order to access this component of the program. This is disclosed with the application instructions but not initiated until a seat is offered in the program. This may have a negative impact to specific at risk dreamer students. Specific marketing to this specific population and other programs serving this population can assist with narrowing this gap. There may also be added barriers for this and other high risk groups in their ability to complete required prerequisites (Anatomy, Physiology, Chemistry, Math) to qualify for program entry. Success rate information in these prerequisite courses can illuminate this question.

BSRC: The program employs a special application process following State chancellor guidance to enter a new cohort each Fall. Potential students are required to complete an entry into practice Respiratory Care program and 30 of 39 lower division CSU GE units (as required by regulation). Entering cohorts are consistently diverse as a result of minimized barriers in the application and selection process.

Most ethnic demographics percentages mirror between the program and college. However we do see a 7% over-representation with Filipinos, an 8% under-representation with both Asians and Hispanic/Latinos. This program has also worked to minimize unnecessary barriers in the application and selection process. As this is identified as a degree completion program and provides students who have completed an ASRC program a pathway for completing a Bachelor's of Science in Respiratory Care, the majority of students are recruited from outside the college and throughout California. As such program demographics will continue to be different from college patterns. Program faculty and counselors work with Skyline College ASRC students who have not completed a Bachelor's degree to help them vision and prepare to seamlessly continue to further degree completion. There is opportunity for program faculty, staff, and counselors to make strong connections with the other 30+ ASRC programs and their graduates to proactively support matriculation to Skyline's Bachelor degree program.

**ii. COURSE ACCESS: Provide analysis of enrollment trends for each course. Which course(s) have declining enrollment, and why might that be the case? What insights do you gain from the impact of course offering patterns?**

In the ASRC program track, education plans require students to enroll in the full complement of courses through each semester. Course content scaffolds from semester to semester and build skills and ability upon each other. As such, previous semester grouped courses are prerequisite to subsequent semester grouped courses. If a student does not pass one or more major courses in that semester, then they cannot progress and must stop out until they are able to re-enroll, re-attempt, and pass the course. At the identified stop-out point, the Director identifies and reviews a case management plan that is tailored in identifying academic/non-academic challenges and strategies to support continued success upon re-entry.



## SKY Instructional Comprehensive Program Review

In the BSRC program, students enter the program in a cohort fashion and are directed to complete courses as indicated in the cohort schedule. If a student does not pass a class in the schedule progression, they may still continue with other courses in the schedule and attempt any outstanding classes when they are next offered. They are not able to complete the final capstone project course (RPTH B90) until all major courses have been completed. If a student decides to stop-out, the BSRC faculty coordinator identifies and reviews a case management plan that is tailored in identifying academic/non-academic challenges and strategies to support continued success upon re-entry.

**iii. What efforts, if any, have been made to increase equitable access to your program? If more is needed, consider making it one of your program goals in the Action Plan.**

Both programs employ a separate application process for entry. Each program only requires minimum required application elements that are required by ACJCC, CoARC, and/or state standards. No elements such as GPA, work experience, or course recency completion are used to select students from the application pool. If there are more applications than the number of seats, then a lottery is employed. This provides for an equitable and diverse selected pool that is able to enter the program. Student demographics demonstrate equitable access to these programs.

### EFFECTIVENESS

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#### **4.A. OVERALL AND DISAGGREGATED COURSE SUCCESS RATES**

**Comment on course success rates and with particular attention to any observed equity gaps. Specific questions to answer in your responses:**

**i. How do the overall course success rates compare to the College and/or Division success rates?**

ASRC: Overall success rates are consistently 20% higher than College success rates. These students have gained competence in navigating academic processes and have successfully completed and accumulated academic units. As such they are better prepared to enter and engage in the rigors of the curriculum.

**ii. What have you learned from reviewing the overall and disaggregated course success data? Choose disaggregations which are most relevant to programming decisions (e.g. ethnicity, gender, age, enrollment status, and/or disaggregations that are unique to your program).**

Most all courses in both the ASRC and BSRC programs show a greater than 90% success rate.

ASRC:

- Enrollment is over-represented by females 63% as compared to males 35%. Healthcare programs such as this statewide consistently show this pattern. Program faculty and staff continue to promote interest in Respiratory Care through visits to highschools, middle college, prerequisite science courses, as well as various cultural learning communities. These connections access and promote to all genders.
- Data reveals a significantly lower success rate in first semester courses (RPTH 410, 415, 420) for African American Students as low as 70% success compared to Hispanics/Filipino/White ~low 80% and Asian >92%. The absolute number is only 1-2 students however the Program Director and faculty will continue to provide case

## SKY Instructional Comprehensive Program Review

management with this lower success rate population in mind to identify academic and non-academic support strategies to increase success in these first semester courses.

BSRC:

- Data does not reveal significant gaps in the disaggregated data.

Courses discussed below for both the ASRC and BSRC programs identify assumptions regarding gapped success and strategies to address them.

### **4.B. INDIVIDUAL COURSE SUCCESS RATES**

**Provide analysis of success rates for each active course. Is there a minimum success rate that you consider acceptable, and if so, what is it and why? Which courses are not at the acceptable minimum success rate? Which exhibit a success rate over time that fluctuates fairly dramatically? Which other courses are of concern to you, and why?**

ASRC and BSRC: In looking at all courses in the program, 90% is identified as the minimum success rate threshold point. This is 15% higher than the college average success and is a reasonable threshold for identifying and focusing on courses to address gaps.

ASRC:

RPTH 415-Respiratory Pharmacology (85%) & 420-Cardiorespiratory Anatomy & Physiology (86%) occur in the first Fall semester of the program. These two courses contain high levels of new information and the highest complexity in concept understanding and application compared to the other courses offered in this first semester. Faculty continually work to facilitate learning that helps students understand information and concepts and then offer scaffolding assignments that guide students towards competency. The first semester of the program schedules the fewest number of units to allow students to acclimate and readjust outside commitments to allow more time and focus to their studies. The Director of Respiratory Care & Allied Health and program faculty maximize the cohort experience to build community and capacity amongst students to build supportive success strategies (student connection, study groups, academic and student support resources, etc.) The Director of Respiratory Care & Allied Health also individually connects with students to identify challenges and needs within the first third of the semester to proactively support student success early on in the semester. Most students who are not successful in these courses within the first semester of the program often result from outside competing responsibilities (work or family commitments).

RPTH 460-Respiratory Critical care (87%) occurs in the Fall semester of year 2 of the program. This course is fast paced and exposes students to high level complex critical

## SKY Instructional Comprehensive Program Review

care concepts and prepares them to function in a hospital intensive care setting managing patient respiratory life support. Students must spend focused time on complex respiratory ventilator equipment identifying respiratory strategies based on critical disease processes, setting up essential ventilatory equipment and patient settings, and then critically monitoring and making adjustments based on patient dynamics. One faculty member supporting instruction in the lab is insufficient to providing effective in-time instruction while students are completing lab exercises.

To support improvement for these courses the following strategies are identified:

- Faculty review pedagogy and modify to improve scaffolding of assignments for improved student understanding and competency
- Provide tutors who are able to support continued learning inside and outside the classroom. Current college tutors do not have the discipline expertise and specific discipline experts would need to be hired
- Provide an additional discipline expert to provide in-time instruction learning for students in RPTH 460. This would support the instructor of record during the lab portion of the course.

BSRC:

RPTH B20-Advanced Respiratory Case Management (88%) occurs in the first Fall term of the program. Students are becoming acclimated to the expectations of the program and this course introduces new concepts to practicing clinicians. Students who are not successful within courses of the first semester of the program often is a result from outside competing responsibilities (work or family commitments). The BSRC Faculty Coordinator and program faculty maximize the cohort experience to build community and capacity amongst students to build supportive success strategies (student connection, study groups, academic and student support resources, etc.) The BSRC Faculty Coordinator also individually connects with students to identify challenges and needs within the first term of the semester to proactively support student success early on in the semester.

RPTH B90-Respiratory Care Capstone Project (89%) occurs in the last term of the program. Students are working independently to complete independent work based projects. Earlier cohorts have had challenges with staying organized and completing their projects in the time allotted. Faculty have incorporated scaffolding assignments and regular one on one meetings which have improved completion and success rates. Success rates have been above 90% for the last two cohorts.

## SKY Instructional Comprehensive Program Review

SOCI B10-Intersectionality and Citizenship (89%) is an upper division GE course. Success rates are just below the 90% minimum threshold. Students are challenged with completing assignments effectively and in a timely manner. Faculty work collaboratively in a community of practice to address pedagogy and constantly improve facilitation of instruction and assignments to support student success. They also collectively case manage students to individualize success plans.

General issues that contribute to these lower success rates:

- Student enter program not embodying full expectation of time commitment, preparation, and expectations to completion of assignments
- Students have shown gaps in required writing skills which are required in all classes throughout the program

To support improvement for these courses the following strategies are identified:

- Faculty review pedagogy and modify to improve scaffolding of assignments for improved student understanding and competency
- BSRC Faculty Coordinator will review and modify facilitation of student individualized case management to support student success through the program. This will include clear processes for collaborative expectations with program faculty, counselor, Director of Respiratory Care & Allied Health, student touch points, and recommended support strategies
- Review and modify program orientation session to better disclose and feature time commitment, preparation, and assignments for successful course and program completion
- Faculty have produced a student handbook that clearly outlines program goals, expectations, and rubrics for class norms and assignments. Elements will be integrated into the program orientation session and faculty will integrate into their course structure and expectations so students know what will be expected throughout the program.
- Provide writing tutors who can support continued learning inside and outside the classroom. Current college tutors do not have the discipline expertise in respiratory care and specific discipline experts need to be hired.

### **4.C. COURSE AND PROGRAM SLO RESULTS**

**What notable conclusions were drawn from the assessment results? If available, note any differences in assessment results by key disaggregations (e.g. modality, learning communities, etc.). What have been the implications for the program? Specific questions to answer in your response:**

**i. What percentage of course SLOs have been assessed during the past five years?**

**Number of Course SLOs:**

0

**Percentage:**

0

## SKY Instructional Comprehensive Program Review

### ii. How well is the program meeting its PSLOs?

ASRC: Program student learning outcomes (PLOs) are aligned with CoARC accreditation requirements.

- Demonstrate competency in the cognitive, psychomotor, and affective learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).
- Obtain the RRT credential.
- Obtain gainful employment as a Licensed Respiratory Care Practitioner (RCP).

PLOs are assessed and reported yearly to CoARC. Students are assessed and demonstrate competency in the cognitive, psychomotor, and affective learning domains. Information is collected to RRT credential success and gainful employment through required surveys 6 months following graduation.

Data for 2018-2020 demonstrate 100% competency for those students who complete the program, 95% retention, 91% RRT credential and state licensure, and 90% gainful employment as an RCP. 6 month follow up survey also demonstrates 100% satisfaction to program learning outcomes from both graduates and program affiliated employers.

### iii. Are the PSLOs still relevant to your program? If not, what changes might be made?

ASRC: Program student learning outcomes (PLOs) have been reviewed by program staff and the advisory board. These PLOs are aligned with CoARC accreditation requirements, continue to prepare students for gainful employment, and support industry workforce needs.

BSRC Track: Per CoARC accreditation standards, outcomes are identified by programs and the communities they serve. Faculty, staff and the advisory board have reviewed current learning outcomes:

Apply knowledge of advanced Respiratory Care concepts and functions in an integrated approach. Draw on multiple sources of analysis, research, and critical thinking to address a problem and construct an applicable project focused on Respiratory Care.

Feedback revealed they did not fully capture skills and abilities areas that prepare graduates from the BSRC program track for opportunities past entry into practice (ASRC) completion. Feedback also revealed that the PLOs are not front-facing to students so they understand the relevance and benefit of completed skills and abilities preparing them for advancement opportunities.

The following PLOs have been determined and will be submitted to Curriculum Committee for revision to degree information:

Oral and Written Communication: Develop and apply effective professional oral and written communication skills and tools that empower autonomy to be an effective member of the healthcare team.

Evidence Based Practice: Demonstrate the use of evidence-based practice and respiratory driven protocols which enhance the critical thinking of the RCP and provide safe patient care.

Leadership: Develop and apply transformational leadership principles in healthcare that foster an environment of inclusion in decision making. Employ effective strategies to address various business aspects of healthcare particularly value efficacy and continuous quality improvement.

Advanced Knowledge: Demonstrate the ability to evaluate, assess, and apply interventions in areas of

## SKY Instructional Comprehensive Program Review

respiratory care including sleep medicine, neonatal and pediatric care, adult critical care, and respiratory case management.

### **iv. Drawing from the last six years of course SLO assessment, which course(s) and/or course SLO(s) are of concern (e.g., not met or inconclusive results, those with action plans)?**

Course level SLOs were last assessed in the 2017/2018 cycle. SLO assessment was put on hold during the COVID pandemic in Spring 2020. There has been leadership turnover at the program and division level for the past few years. The recently hired Director of Respiratory Care and Allied Health is working with the Faculty to resume course level assessment following the 3 year cycle assessment plan. The following courses are being assessed for Spring 2023: RPTH 430, RPTH 445, RPTH B50, RPTH B52.

See narrative in 4.B. (Individual Course Success Rates) for data analysis and strategies, goals, and plans to enhance success.

### **4.D. COURSE ENHANCEMENTS**

**Which course(s) are of concern due to their course success rates, SLO results, and/or other reasons? What efforts, if any, have been made to enhance student learning in those courses? If more is needed, consider which changes may be submitted to the Curriculum Committee in the Fall, and/or making it one of your program goals.**

Course level SLOs were last assessed in the 2017/2018 cycle. SLO assessment was put on hold during the COVID pandemic in Spring 2020. There has been leadership turnover at the program and division level for the past few years. The recently hired Director of Respiratory Care and Allied Health is working with the Faculty to resume course level assessment following the 3 year cycle assessment plan. The following courses are being assessed for Spring 2023: RPTH 430, RPTH 445, RPTH B50, RPTH B52.

See narrative in 4.B. (Individual Course Success Rates) for data analysis and strategies, goals, and plans to enhance success.

### **4.E. DEGREES AND CERTIFICATES**

**List each of the degrees and certificates separately. Comment on the number and trends in degrees/certificates awarded by your program. Specific questions to answer in your responses:**

#### **i. What do the data reveal about degree and certificate completion? time to completion?**

The Respiratory Care Program offers both an Associate of Science (ASRC) and Bachelor of Science (BSRC) degree. Students enter each track of the program full time as a cohort and complete a directed sequence of courses over 2 years. Most students complete their major coursework and general education and are awarded their degree at the end of the two year period.

ASRC: 106 ASRC degrees have been awarded over the past 5 years with an average of 21 awarded for each cohort. 25 students are admitted to each cohort with an average of 84% completion rate with a very high percentage completing on time (2 years after entering the program). This trend continues to remain high.

BSRC: A total of 50 BSRC degrees have been awarded over the past 4 years with an average of 12 awarded for each cohort. There is a much lower completion rate for this track. With an average of 24 students entering per cohort, there is a 50% completion rate

## SKY Instructional Comprehensive Program Review

with most of these completing their major course and general education and are awarded their degree at the end of the two year period.

### ii. What changes do the data suggest are necessary for the program to explore?

BSRC: Feedback from students who begin the BSRC program but do not complete reveal that these students are already working as healthcare providers and many are seeking work/school/life balance and are unable to commit to the demands of full time enrollment. The program is looking into how to restructure scheduling patterns so students can enter at any given term and choose a schedule that may work for them. Considerations would include open rolling application process, transcript review, prerequisite course patterning, and assignment and pedagogy elements between paired courses.

### **4.F. LABOR MARKET CONNECTION**

**If appropriate for your program, given labor market data related to your program, discuss current labor trends and how your program is addressing them. How are you incorporating any of the following into program planning: Labor Market and Trends (e.g., Centers of Excellence, Burning Glass), Performance for CTE Programs (Launchboard), and/or Advisory Boards? Report out on whichever source(s) are relevant to your program.**

Demand for Respiratory Care Practitioners remains in demand. Average demand was 508 positions in the last 12 months for San Francisco, San Mateo, and Santa Clara Counties. There are only 2 programs that directly offer entry into practice Respiratory Care Programs in these counties and graduate approximately 50 students per year. Overall median salary per Burning Class is \$63, 849 with many new graduates who receive full time permanent positions start at or above the median. Labor market predictions project 20.1% growth over the next 10 years.

While entry into practice minimum education requires an Associate degree to provide direct patient care in the clinical setting, many advancement opportunities in specialty care of respiratory patients, leadership and management positions, research, or teaching positions require a Bachelor's or more to qualify for these positions.

Skyline College provides students an Associate of Science in Respiratory Care that meets education, training, and credentialing standards to gain licensure and competent gainful employment as Respiratory Care Practitioners. All graduates who receive California licensure receive gainful employment within 6 months. The program is accredited by the Commission on Accreditation for Respiratory Care (CoARC) and is approved for a maximum of 25 students per year. The program is further limited to 25 students due to limited placement slots for students during their clinical experience. This is a limiting issue for all Respiratory Care programs in the Bay Area.

Skyline College also provides students with a Bachelor's of Science in Respiratory Care that builds upon entry into practice training and allows students to receive further education and training in specialty care of respiratory patients, leadership and

## SKY Instructional Comprehensive Program Review

management, research, or teaching. Program curriculum has been developed based on area industry feedback. Students who have completed the program have reported that completion of this Bachelor's degree has helped them advance within the profession. The program admits up to 40 students per year, however there has been a noticeable trend in enrollment decline. The following have factors may have contributed to this decline:

- ACJCC requires 40 upper division units for a Bachelor degree award regardless of lower division units students have already completed towards the 120 unit minimum. This is a degree advancement program for students who have already completed an ASRC degree. Most health care students completing this degree at this juncture have accumulated 100 units. ACJCC is the only regional accreditation body that specifically identifies the upper division unit minimum to award a Bachelor's degree. Other regional accrediting bodies do not. As such many students are looking elsewhere outside the state where they have to complete less units to achieve their Bachelor's degree. Compounding this issue California regulation is requiring completion of lower division CSU or UC general education. We are seeing California ASRC program graduates seeking degree completion programs outside the state such as Boise State or Kansas University. Both these programs offer degree completion with less lower division GE and upper division units.
- Current program scheduling admits students once a year in a cohort model and requires students to enroll full time (12 units per semester). Potential students are already working as healthcare providers and many are seeking work/school/life balance when considering further education opportunities. The program is looking into how to restructure scheduling patterns so students can enter at any given term and choose a schedule that may work for them. Considerations would include open rolling application process, transcript review, prerequisite course patterning, and assignment and pedagogy elements between paired courses.
- The state has approved four other community college bachelor degree programs across California. Two are in the Bay Area, one in the Central Valley, and two in Southern California. This can have a dilution impact on potential California applicants further exacerbating application and enrollment trends. The program will work to identify pipeline and marketing strategies to increase enrollment.

### **4.G. STUDENT FEEDBACK**

**Describe how and when feedback was solicited from students, whether qualitative or quantitative, and what the results reveal. If feedback was scant, describe the attempts made and speculate why.**

Both the ASRC and BSRC are CoARC accredited and require student feedback yearly. Standardized surveys are administered focusing on soliciting feedback to the following areas: faculty effectiveness in teaching and learning; faculty and staff accessibility; classroom, lab, and clinical facilities; equipment supporting instruction; learning and academic resources; and overall program experience.



## SKY Instructional Comprehensive Program Review

ASRC: 40 respondents. 85% of student respondents identified satisfaction with the program. 12.5% did not indicate a response. Students indicated at least 75% or greater in the surveyed areas identified above. Student comments identified in general faculty and staff were accessible and supported student learning and success. They also identified clinical experiences and work based learning opportunities as a great strength of the program and success for their competence in the profession.

While overall satisfaction is high, the following feedback is of note for improving program elements to support student learning and successful completion:

- Specialized laboratory equipment gets outdated and does not reflect current technology in the clinical setting. This is especially true for ventilators used in the intensive care units. Students need to learn and demonstrate competency in the lab before performing procedures with live patients in the clinical setting. Request that the division allocate funding yearly to purchase at least 1 up to date ventilator and other necessary relevant therapeutic equipment each year.
- Student feedback identifies insufficient faculty instruction personnel during intensive lab learning for RPTH 460-Respiratory Critical Care. Learning and applying concepts competently is essential to effectively completing this course and demonstrating effective and safe care as a student in the clinical setting. An additional discipline expert is requested to provide in-time instruction learning for students in RPTH 460. This would support the instructor of record during the lab portion of the course.
- Some feedback also identifies general comments to dissatisfaction between course content and testing; and timely grading and feedback of assignments and tests. The ASRC Program Director will convene program faculty as a community of practice to share and integrate best practices to address and improve these issues.

BSRC: 11 respondents. All of the student respondents identified at or above satisfaction with the program. Student comments identified faculty and staff as accessible and supported student learning and success. They also enjoy that the program is fully online, allows for independent study to complete assignments and projects, and allows the ability to continue working to maintain livelihood.

Students have commented on wanting less synchronous sessions for classes. While that is what they request, the intention is to create high level touch points for connection between instructor and student colleagues as well as help students stay on track with learning outcomes and deadlines.

## SKY Instructional Comprehensive Program Review

- There appears to be a disconnect between outcomes of synchronous session touchpoints and student's perceived experience. Faculty will continue to work collaboratively to improve synchronous session student experience for effective outcome intentions.
- As mentioned with enrollment decline, students who have left the program are not represented in survey results. Informal feedback reveals many of these students are already working as healthcare providers and many are seeking work/school/life balance. Many students who have left the program after starting have expressed that the required full time enrollment is too demanding. The program is looking into how to restructure scheduling patterns so students can enter at any given term and choose a schedule that may work for them. Considerations would include open rolling application process, transcript review, prerequisite course patterning, and assignment and pedagogy elements between paired courses.

### **4.H. CURRICULUM**

**Programs are required to update all curriculum and secure approval by the Curriculum Committee. Please indicate whether the following tasks have been completed.**

**Secured approval of updated courses by the Curriculum Committee**

Yes

**Updated the Improvement Platform with new or changed SLOs, and requested from PRIE the addition of new courses after approval by the Curriculum Committee**

No

**Submitted a current assessment calendar with all active courses to the Office of Planning, Research, and Institutional Effectiveness**

Yes

**Reviewed, updated (as needed), and submitted degree and certificate maps to the Curriculum Committee**

Yes

### **KEY FINDINGS**

**Using key findings based on the analysis from this CPR cycle, develop a multi-year plan designed to improve program effectiveness and promote student learning and achievement. Commit to three-to-five new and/or ongoing goals total. Enter goals via Step 2: Goals and Resource Requests.**

### **5.A. CHALLENGES AND CONCERNS**

**Considering the results of this year's CPR assessment, identify challenges, concerns, and areas in which further action is needed. Reference relevant sections of the CPR that provide further insight.**

The ASRC program is well established and maintains very high course and program completion rates. Graduates successfully obtain their credentials and licensure and find gainful employment within the 6 months after graduation. Program faculty will work to employ identified strategies to improve greater success for individual courses identified in this comprehensive program review (4.B).

The BSRC program has been active and graduated 5 cohorts since its inception. There has been a dwindling application pool which has affected enrollment. There are some perceived reasons which may contribute to this dwindling enrollment: accreditation high required upper division units, structured full time enrollment pattern, and other recently approved BSRC programs in the state of California (4.F). Strategies of marketing/outreach and open (part time-full time) enrollment/schedule patterning will be developed and employed as identified in this comprehensive program review.

## SKY Instructional Comprehensive Program Review

Analysis of program data has also revealed a less than 50% progression and completion rate which is of concern. Student feedback has suggested that full time enrollment is too demanding for work/life balance resulting in dropout. This has contributed to lower progression and completion rates (4.G). Strategy of open (part time-full time) enrollment/schedule patterning will be developed and employed as identified in this comprehensive program review. An effective student case management program can also support students proactively to improve progression and completion rates for the BSRC program (4.B). BSRC Program Faculty Coordinator will work with the Director of AH and RC to develop and operationalize student case management processes based on processes utilized in the ASRC program.

## GOAL

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BSRC: Ongoing Goal 1: Discipline Experts

### Goal and Desired Impact on Students

ASRC: Discipline expert to provide in-time instruction learning for students in RPTH 460. This would support the instructor of record during the lab portion of the course.

Students must spend focused time on complex respiratory ventilator equipment identifying respiratory strategies based on critical disease processes, setting up essential ventilatory equipment and patient settings, and then critically monitoring and making adjustments based on patient dynamics. One faculty member supporting instruction in the lab is insufficient to provide effective in-time instruction while students are completing lab exercises. This professional expert would support the instructor of record during the lab portion of the course.

### Year Initiated

2023 - 2024

### Implementation Step(s) and Timelines

Fall 2023

Academic Year Updated

Goal Status

Discipline expert to provide in-time instruction learning for students in RPTH 460. Resource Request: Discipline expert

Division Name: STEM

Program: AS Respiratory Care

Year of Request: Fall 2023 and ongoing yearly

Resource Description: Ongoing personnel funding

Resource Type: Ongoing personnel funding

Funds Type – Fund 1 or Career Technical Funds

Cost: 48 hours @ xxx, benefits @ x% of total

Level of need, with 1 being the most pressing

## GOAL

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BSRC: Ongoing Goal 2: Professional Expert Tutors

### Goal and Desired Impact on Students

ASRC: Provide tutors (professional experts) with specific respiratory care knowledge who are able to support continued learning inside and outside the classroom.

Provide tutors who are able to support continued learning inside and outside the classroom. These tutors can support high risk students learning for competence specifically for RPTH 410, 415, 420, and 460. Current college tutors do not have the discipline expertise and specific discipline experts would need to be hired.

### Year Initiated

2023 - 2024

### Implementation Step(s) and Timelines

Fall 2023

Academic Year Updated

Goal Status

Tutors (professional experts) to provide learning support for students throughout the 2 year program.

Resource Request: Discipline expert

Division Name: STEM

Program: AS Respiratory Care

Year of Request: Fall 2023 and ongoing yearly

Resource Description: Ongoing personnel funding

Resource Type: Ongoing personnel funding

Funds Type – Fund 1 or Career Technical Funds

Cost: xx hours @ xxx, benefits @ x% of total

Level of need, with 1 being the most pressing

## GOAL

BSRC: Ongoing Goal 3: Community of Practice/Professional Development Institutionalized Budget

### Goal and Desired Impact on Students

BSRC Community of Practice/Professional Development Institutionalized Budget

There is not currently an identified institutionalized budget for the BSRC community of practice meetings or the professional development days identified 1-2 times per year for adjunct faculty to attend. These critical professional development structures need institutionalized budget to support continued student success. Community of practice and professional development meetings support student success to completion by providing opportunities for student case management and faculty professional development to facilitate effective student learning and support student success strategies.

### Year Initiated

2023 - 2024

### Implementation Step(s) and Timelines

Resource Request: Institutionalized funding for adjunct faculty to attend 4 community practice meeting per academic year and 2 (4 hour) professional development days per year

Division Name: STEM

Program Name: Respiratory Care BSRC

Year of Request: 2023/2024

Resource Description: Adjunct faculty funding

Resource Type: Hourly rate + Benefits

Funds Type – Mark all that apply. Fund 1 or workforce development funds

Cost: Community of Practice 8 faculty X 1.5 hour session X 4 meetings =

Professional Development 8 faculty X 4 hour session X 2 meetings =

Level of need, with 1 being the most pressing (1)

## GOAL

BSRC: Ongoing Goal 4: BSRC Program Student Enrollment Pattern

### Goal and Desired Impact on Students

BSRC Program Student Enrollment Pattern

Current program scheduling admits students once a year in a cohort model and requires students to enroll full time (12 units per semester). Potential students work as healthcare providers and many are seeking work/school/life balance when considering further education opportunities. The program is looking into how to restructure scheduling patterns so students can enter at any given term and choose a schedule that may work for them. Considerations would include open rolling application process, transcript review, prerequisite course patterning, and assignment and pedagogy elements between paired courses.

**Year Initiated**

2023 - 2024

**Implementation Step(s) and Timelines**

Resource Request: Facilitated by BSRC Program Faculty Coordinator with support from Director RC & AH. Community of Practice meetings will be utilized to have discussion, provide feedback and share progress to goal.

Division Name: STEM

Program Name: Respiratory Care BSRC

Year of Request: 2023/2024

Resource Description: NA

Resource Type: NA

Funds Type – Mark all that apply. NA

Briefly explain how this request helps to advance the goals and priorities of your program, the College, the District, and/or the California Community College Chancellor’s Office. Restructuring of program sequencing will allow full and part time enrollment status which will support increased enrollment and FTES college and district goals.

Cost: NA

Level of need, with 1 being the most pressing (1)

**GOAL**

BSRC: Ongoing Goal 5: BSRC Program Marketing

**Goal and Desired Impact on Students**

BSRC Program Marketing

BSRC Program enrollment has declined over the past 3 years. BSRC Program Faculty Coordinator and Director of RC & AH will collaborate with MCPR to create and execute a marketing plan to include outreach to Statewide ASRC program students, California licensed practitioners and RC professional organizations. Counselors will identify and execute a strategy to support student matriculation from feeder programs.

Outreach marketing and matriculation strategies will support increased enrollment and FTES college and district goals.

**Year Initiated**

2023 - 2024

**Implementation Step(s) and Timelines**

Resource Request: Facilitated by BSRC Program Faculty Coordinator with support from Director RC & AH, Community of Practice meetings will be utilized to have discussion, provide feedback and share progress to goal.

Division Name: STEM

Program Name: Respiratory Care BSRC

Year of Request: 2023/2024

Resource Description: NA

Resource Type: NA

Funds Type – Mark all that apply. NA

Cost: NA

Level of need, with 1 being the most pressing (1)

**GOAL**

BSRC: Ongoing Goal 6: BSRC Integration of Student Handbook and Alignment of Expectations

**Goal and Desired Impact on Students**

## BSRC Integration of Student Handbook and Alignment of Expectations

To assist with student understanding of course/program expectations, faculty collaborated to create a student handbook which contains participation, assignment, and grading standard rubrics. This is to be operationalized throughout all courses. The handbook will be integrated into the program orientation modules to support student understanding prior to starting the BSRC program.

Clearly defined program expectations and aligned grading rubrics support student success to completion by facilitating effective student learning and support student success strategies.

### **Year Initiated**

2023 - 2024

### **Implementation Step(s) and Timelines**

Resource Request: BSRC Program Faculty Coordinator through Community of Practice meetings will review handbook and ensure faculty align participation, assignment expectations, and grading standards across program courses.

Division Name: STEM

Program Name: Respiratory Care BSRC

Year of Request: 2023/2024

Resource Description: NA

Resource Type: NA

Funds Type: NA

Cost: NA

Level of need, with 1 being the most pressing (1)

## **GOAL**

BSRC: Ongoing Goal 7: BSRC Faculty Coordinator Case Management

### **Goal and Desired Impact on Students**

BSRC Faculty Coordinator Case Management

Data shows less than a 50% completion rate for students who start the program. An effective student case management program can support students proactively to improve progression and completion rates for the BSRC program. Student case management processes proactively support student success to completion by facilitating effective student learning and support student success strategies.

### **Year Initiated**

2023 - 2024

### **Implementation Step(s) and Timelines**

Resource Request: BSRC Program Faculty Coordinator will work with the Director of AH and RC to develop and operationalize student case management processes based on processes utilized in the ASRC program.

Division Name: STEM

Program Name: Respiratory Care BSRC

Year of Request: 2023/2024

Resource Description: NA

Resource Type: NA

Funds Type: NA

Cost: NA

Level of need, with 1 being the most pressing (1)

## **GOAL**

BSRC: Ongoing Goal 8: Director of Allied Health & Respiratory Care Professional Development Institutionalized Budget

### **Goal and Desired Impact on Students**

**Director of Allied Health & Respiratory Care Professional Development Institutionalized Budget**

There is not currently an identified institutionalized budget for the Director of Allied Health & Respiratory for Professional Development and attendance of critical health care focused meetings. Faculty are provided the opportunity to attend conferences through faculty professional development funds. The Director of Respiratory Care and Allied Health cannot access these funds. A budget can be institutionalized to ensure attendance of the State and National conferences.

Director attendance supports the Director of AH & RC to complete needed professional development education units for required licensure, provide networking opportunities with industry employers, educators, and other healthcare providers. This promotes goals of supporting high quality instruction and training in career technical workforce employment.

Cost: Registration = \$1500, Travel, lodging, meals = \$3500

**Year Initiated**

2023 - 2024

**Implementation Step(s) and Timelines**

Resource Request: Institutionalized funding for the Director of Allied Health & Respiratory Care to attend at least 2 meeting per academic year to include registration, travel, lodging, and meals.

Division Name: STEM

Program Name: Respiratory Care

Year of Request: 2023/2024

Resource Description: Director of AH & RC Professional Development funding

Resource Type: Conference Attendance

Funds Type – Fund 1 or workforce development funds

Cost: Registration = \$1500, Travel, lodging, meals = \$3500

Level of need, with 1 being the most pressing (1)