

Skyline College

Respiratory Therapy

Program Review

Executive Summary



Short Summary of Findings

The Respiratory Therapy Program at Skyline College is a career technical education (CTE) program which serves the San Francisco and San Mateo Counties and provides the necessary education and training requirements to students who are interested in providing health care as Respiratory Therapists. The program supports the mission of Skyline College and the San Mateo Community College District in partnering with industry and the community in response to economic changes requiring this additional workforce development.

The program has been in existence for 40 years and has earned a strong reputation throughout the Bay Area for preparing graduates to enter the workforce. Since the last review, interest in the program has increased significantly. Student retention and success remains high. External accreditation was completed in Fall 2008. All standards were met with recognition given for dedicated faculty, medical director, and community involvement. The program and students enjoy new laboratory facilities, an allied health learning center, and state of the art laboratory equipment; all which enhance learning and outcomes.

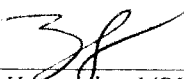
Three Strengths of the Program

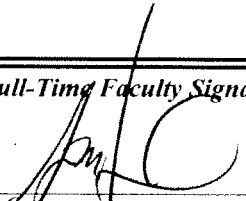
- Retention and success continues to remain high and graduates are well prepared to enter the workforce. The cohort experience proves to be a support mechanism as they move forward each semester.
- The industry is highly committed to the program and student success. They are actively engaged through the advisory board and in the clinical component of the program and freely provide resource support when needed.
- The program provides excellent resources: new laboratory facilities, an allied health learning center, state of the art laboratory equipment, and dedicated faculty and support services. These resources contribute to the excellent outcomes for students.

Three Suggestions for Improvement

- Perform a comprehensive review of curriculum and modify based on needs and goals. This has been achieved through the program review process. Changes will take effect Fall 2011.
- Develop and pilot a "Clinical Preceptor Program" with the intention of offering the workshop yearly. This will provide more consistency during the clinical portion of instruction.
- Acquire a simulation mannequin/station to enhance the learning experience and improve student learning outcomes.
- Implement DataARC electronic data management system to improve program data tracking efficiency and progress related to student learning outcomes.

Full-Time Faculty Signatures


Raymond Hernandez, MPH, RRT-NPS
Program Director


Brian Daniel, RCP, RRT
Clinical Director

Submitted on: March 26, 2010

SKYLINE COLLEGE PROGRAM REVIEW SELF STUDY

PART A: Mission Effectiveness

Overview

- 1. State the goals/ focus of this program and how the program contributes to the mission and priorities of the College and District.*

The Respiratory Therapy Program at Skyline College is a career technical education (CTE) program which serves the San Francisco and San Mateo Counties and provides the necessary education and training requirements to students who are interested in providing health care as Respiratory Therapists. The program supports the mission of Skyline College and the San Mateo Community College District in partnering with industry and the community in response to economic changes requiring this additional workforce development.

The advanced practitioner program has been in existence for 40 years and holds a strong reputation in the community for providing well prepared graduates to enter the work force. It serves all of San Francisco and northern San Mateo Counties and is affiliated with 10 hospital institutions and agencies in its service area. These institutions include a sufficient mix of larger teaching centers and smaller community hospitals as well as non clinical outpatient respiratory services. Students complete a two year sequence of core Respiratory Therapy classes as well as obtain an Associate of Science degree to meet California licensing requirements. At minimum, this leads to a three year commitment causing students to demonstrate focus and success in this CTE program.

The Respiratory Therapy Program at Skyline College focuses on training students in becoming competent practitioners to provide care to people with breathing disorders. These health issues affect all ethnic groups, ages, and genders. This program has been recognized by the Center for Student Success Study on Diversity in Health Occupations Training Programs as one that is highly diverse in its student population. This program also meets the needs of our diverse community by providing full and part-time faculty that represent a cross section of the students we serve.

The Bay Area had seen great economic growth in the late 90's and early part of this decade. As such there was a decrease in interest and enrollment for the Respiratory Therapy Program. The technology sector and dot.com industry was flourishing and many health care programs in the area had seen a significant decline in enrollment. Because of this fewer graduates were realized to meet the needs of employers and subsequently the demands far exceeded the supply. There was a dramatic increase in interest and enrollment in the mid portion of this decade with the downturn of the dot.com industry. Skyline and other community college programs in the area are now beginning to fill the needs of the workforce. Graduates continue to enjoy multiple job opportunities in the community and throughout the bay area.

Graduates of the program pass the state licensing exam at a rate above the national average for people who take the exam the first time or repeat once. Members of the program's advisory board feel that the outcomes reflect the commitment and hard work of the faculty and that the diversity of the graduates reflects the community that Skyline serves, which was not the case a few decades ago. The attrition rate is comparable to other programs in the Bay Area and on average the program loses few

students per class each year. The program maintains a strong reputation in the Bay Area community for training students to be competent Respiratory Therapists as they enter the workforce.

2. *Discuss how this program coordinates, impacts, and/or interacts with other programs in the College.*

The Coordinator of the Respiratory Therapy program works with the Counseling department to ensure they are aware of all the requirements needed for meeting these requirements. The program coordinator communicates at least once per academic year changes in information by attending scheduled faculty and staff counseling department meetings. It is an absolute priority to maintain ongoing communication between the program, students, and counseling department to ensure student success and completion of their requirements. The program maintains an affiliation with San Francisco City College to draw students from their campus.

This Respiratory Therapy program also coordinates assignments and teaching demonstrations with various biology courses to meet two objectives:

1. Provide exposure for the Respiratory Therapy program and profession.
2. Provide assignments between disciplines to emphasize relevancy of course content being presented.

Respiratory Therapy program faculty are able to share their expertise with students in other departments and the exposure has helped to improve interest and enrollment within the program.

The program participates in activities co-sponsored with the college health center. Program students conduct lung screenings which include basic vital signs, oxygen saturations, and peak flow rates. These activities provide a means for Respiratory Therapy students to teach other college members about basic physiologic values and determinants of lung health.

Program Faculty interact with the other health care program on campus, i.e. Surgical Technology, Central Processing, and Emergency Medical Technology. Faculty within these programs meet at least once a semester to discuss issues and share information relevant to each other's programs.

3. *Explain how this program meets the needs of our diverse community.*

The Respiratory Therapy Program at Skyline College focuses on training students in becoming competent practitioners to provide care to people with breathing disorders. These health issues affect all ethnic groups, ages, and genders. Recruitment efforts to attract diverse students are a priority to ensure that graduates represent the diversity of the community. Efforts are made by recruitment through presentations in anatomy and physiology sections at Skyline. Enrollment statistics are as follows:

	African American	Asian	Filipino	Hispanic	White	Other	Unknown
RT Program '01-'03	5%	11%	29%	12%	26%	9%	3%
RT Program '04-'09 average	8%	23%	36%	9%	20%	1%	2%
Skyline College '04-'09 average	4%	28%	19%	18%	21%	2%	8%

Enrollment statistics based on ethnicity for respiratory therapy program courses combined compared to overall college statistics

	Female	Male	Unreported
RT Program '01, '02, '03	52%	48%	na
RT Program '04-'09 average	60%	40%	na
Skyline College '03-'08 average	54%	45%	1%

Enrollment statistics based on gender for respiratory therapy program courses combined compared to overall college statistics

The program also employs a diverse faculty population that is representative of our diverse student population. This helps in recruitment, retention and success efforts of our students.

	African American	Asian	Filipino	Hispanic	White	Middle Eastern
Full and Part-time Faculty	8%	8%	16%	8%	50%	8%

Because the program is impacted, there is an application process in place. All applicants are considered who meet the minimum qualifications. They must complete the prerequisites with a “C” or better which include entry level algebra, human anatomy, and chemistry and submit a completed application. There are no other evaluation requirements such as GPA or experience utilized in the selection process. This ensures that all applicants have equal consideration despite the educational and support advantages or disadvantages they may have experienced.

4. *If the program has completed a previous self-study, evaluate the progress made toward previous goals.*

The last program review for Skyline’s Respiratory Therapy Program was completed in October of 2004. The following were identified for areas of improvement and were addressed in the following ways:

- *Expand the community service area to include areas which are not being directly served by Respiratory Therapy Programs around the Bay Area.*

Expansion to Marin County has been explored since the last program review. No Bay Area programs were serving this area at that time. However, in 2008, a propriety Respiratory Therapy program, Western Career College, has been established in Pleasanton. As such Napa Valley College’s Respiratory Therapy has contracted with Marin County clinical sites in response to losing some of their clinical site affiliations as a result of the newly established propriety program.

- *Addition of a part-time track is being considered to allow students to integrate work and personal commitments to allow increased access to our diverse student population.*

Two other Respiratory Therapy Programs in the Bay Area offer part time tracks extending the curriculum from two to three years in length. In surveying faculty at these programs it was found that very few students take advantage of the part time track. Though it does meet the needs of a few students, the program directors at Napa Valley College and Ohlone feel there are challenges with introducing a part time track. Reasons have included lower success rates with those who take longer to complete the program, loss of connection with cohort classmates, and decrease in maximum capacity as some seats are left open from semester. With the increase in demand for the Skyline program as it currently is structured, the part time track has been placed on hold.

- *With declining enrollments in previous years, efforts need to be made with Skyline’s sister Colleges and other academic and health care institutions to continue to improve interest and influx of students into the program and profession.*

Since the last program review, there has been a dramatic change in popularity of the Respiratory Therapy program. With the decline in the local dot.com/technologies industry, there has been an increased interest in allied health programs. Program faculty regularly communicate with counseling departments at CSM and Canada as well as Skyline and distribute program information improve interest and refer students to the program from across the district. Partnerships with Respiratory Therapy departments throughout San Francisco and northern San Mateo Counties have been developed to refer employees to Skyline who are looking for health career advancements. Since the last program review, the applicant pool continue to increase. In Spring 2009, approximately 110 qualified applications were received.

PART B: Student Learning Programs and Services

Overview

1. If the program utilizes advisory boards and/or professional organizations, describe their roles.

As part of CoARC accreditation requirements the program is mandated to utilizing an advisory board. This advisory board is comprised of representatives from all interested parties involved in the program:

- Program Faculty
- College Administration
- Clinical site Department Directors
- Students

A strength of this program is the involvement of the community in this process. The advisory board meets quarterly with enthusiastic participation from the faculty, college administration, clinical sites members, and students. Through this process issues regarding the program, profession, and community are discussed and solutions are identified to aid the program to meet it's goals effectively. Members of this board are also involved with State and National professional organizations which also link these organizations to the program and help filter vital national and local information to this program.

In 2008 the program completed its external accreditation self study. The advisory board was actively engaged with members participating in subcommittees, providing requested information, and attending the onsite self study visit. All standards were met with recognition given for dedicated faculty, medical director, and community involvement.

(http://www.smccd.net/accounts/hernandezr/advisory_committee.htm)

Curriculum

1. Describe how the courses offered in the program meet the needs of the discipline(s) and the students. (This may be answered through descriptive narrative evaluation or quantitative research).

Program content is aligned with standards identified through the profession's external accrediting agency, the Committee on Accreditation for Respiratory Care (CoARC). The program underwent it's self study review in fall of 2008 and received excellent commendations for program faculty dedication and college support (see CoARC self study report). There were also some recommendations that the program continues to address:

- Enhance clinical education component to ensure consistency between sites so student education is parallel.

A rubric for student evaluation has been developed and introduced into the clinical affiliate sites to address the inconsistencies in the evaluation process. The rubric will be reviewed with each clinical site annually to ensure that it is utilized effectively. To address uniformity of student support, a clinical preceptor program will be developed and piloted for Spring 2010. A grant proposal is to be submitted this coming academic year to fund and support the project.

- Perform a comprehensive review of curriculum and modify based on needs and goals.

A taskforce was convened in response student and graduate surveys which identified overwhelming compression of course content during the program's first semester of year two. The taskforce included students, faculty, and community members. Annual student, graduate, and employer surveys were analyzed. Course sequencing from Respiratory Therapy Programs around the bay area were reviewed as well. The following recommendations were identified and approved by the advisory board:

- Remove medical terminology class as part of RT curriculum. Make course a prerequisite to entering program
- Remove pharmacology component from RPTH 430. Add RPTH 425 to first semester (1.5 hours)
- Decrease RPTH 400 by .5 hours. Class effective decreasing time
- Add introduction of ventilator concepts at end of RPTH 430 class
- Remove introduction of ventilator concepts from RPTH 460 course. Remove Friday 2 hour component from first 8 weeks
- Add 16 hours of lecture to RPTH 490 (neonatal/pediatrics)

Changes to the curriculum have been made and been submitted to the college curriculum committee for approval and will take effect Fall 2011.

2. *State how the program has remained current in the discipline(s).*

Program faculty attend, participate and collaborate with local, state, and national meetings on the subject of cardiopulmonary science. Information gathered from these meetings by full and part time faculty has been shared in various forums both within the classroom and in the respiratory community. This adds to the strength of the program being that information shared with students focuses on the most current evidenced based nationally accepted practices.

3. *If the student population has changed, state how the program is addressing these changes.*

The program's student population remains gender, age, and ethnically diverse. Program interest continues to increase with very little attrition. Last year approximately more than 100 applications were received. A barrier to admitting more students to the program has been the number of clinical placements available for students. Currently we have eight clinical affiliates:

- California Pacific Medical Center
- Kaiser San Francisco
- Mills/Peninsula Hospitals
- Kaiser Hospital, San Francisco
- San Francisco General Hospital
- Seton Medical Center
- St. Luke's Hospital
- University of Calif. San Francisco
- Veteran's Administration Hospital, San Francisco

It is anticipated that student will begin clinical rotations at Kaiser Hospital, South San Francisco beginning Fall 2010.

4. *All courses in this program should be reviewed for currency and modified every six years. If this has not occurred, please list the courses and explain.*

Courses are reviewed and modified to reflect currency in respiratory care practice and internal/external accreditation standards. SLOs have been identified for all courses. A subcommittee of the Respiratory Therapy Advisory Committee convened a curriculum taskforce in Fall 2009 to address issues identified from student, graduate, and employer surveys. See question 1 above for outcome details.

5. *If external accreditation or certification is required, please state the certifying agency and status of the program.*

External accreditation is monitored by the Committee on Accreditation for Respiratory Care (CoARC). There are two types of Respiratory Therapy programs nationally that are approved and accredited by this organization. The first is an entry level program status which allows graduates from this level to be able to acquire the first level of credential, Certified Respiratory Therapist (CRT). The

other is an advanced practitioner program which allows graduates from this level to not only obtain the CRT credential, but also a higher level of credential of Registered Respiratory Therapist (RRT). The program at Skyline College is accredited to meet the standards of an advanced practitioner program. Graduates obtaining this higher level of credential will have an advantage in employment and opportunities in the realm of Respiratory Care having this higher credential.

Yearly, the following is mandated by this organization and either evaluated by the program or submitted to this accreditation agency:

- Data report including retention and success of entering and continuing students
- Entry level credential and Registry credential pass rates of graduates
- Surveys from entering and graduating students, clinical affiliates, and advisory board members

The program completed its comprehensive self study in Fall 2008 with excellent response from CoARC. The next onsite visit will occur in 2018.

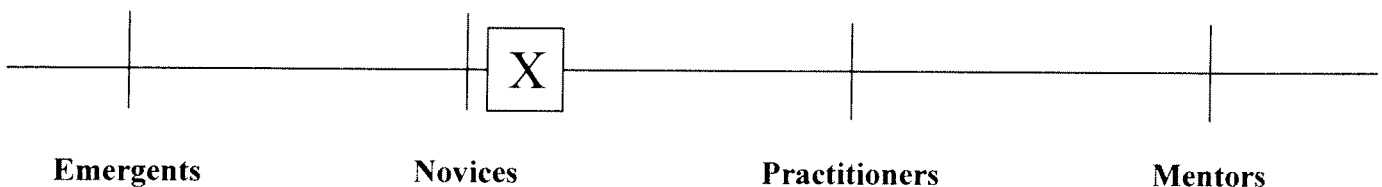
(http://www.smccd.net/accounts/herandezr/advisory_committee.htm)

Student Learning Outcomes & Assessment

1. *Where on the continuum do you believe your department is on the SLOAC Initiative?*

Emergents	Novices	Practitioners	Mentors
<ul style="list-style-type: none"> • Learning and discovering • Gathering information • Attending workshops 	<ul style="list-style-type: none"> • Beginning a dialogue • Drafting SLOs • Drafting assessment plans • Taking inventory of assessments • Creating instruments for assessment 	<ul style="list-style-type: none"> • Engaging in widespread dialogue • Implementing assessment plans • Refining SLOs • Reviewing outcome data and discussing implications 	<ul style="list-style-type: none"> • Facilitating discussions and generating new dialogue • Conducting workshops • Lending assistance

Mark an X on the continuum and briefly comment.



2. *Highlight any major findings and resulting course or program modifications.*

The program has identified student learning outcomes for all courses. Faculty are currently finalizing an assessment plan which will be implemented beginning Fall 2010. It is anticipated that SLO assessment will be conducted in Fall 2010 for RPTH 420, RPTH 460 and in Spring 2011 for RPTH 430, RPTH 495. These courses were identified as they contain key learning elements for the overall program.

3. *What additional resources are needed to implement the plan?*

There are no additional resources required to implement the plan. Program faculty will seek the assistance of the college researcher when analyzing the data.

PART C: Resources

Faculty and Staff

1. *List major development activities completed by faculty and staff in this program in the last six years and state what development is needed or proposed by faculty in this program.*

All program faculty remain active in development activities pertaining to program curriculum and are involved in various professional organizations within the academic arena and the profession of Respiratory Therapy.

Raymond Hernandez, Program Coordinator, is a licensed Registered Respiratory Therapist and has been actively involved in various development activities and RT professional activities. He has been a full-time faculty member since 1998. He continues to utilize his website as a portal for students and the community to the Respiratory Therapy Program and as an extension to instruction:

<http://www.smccd.net/accounts/hernandezr/index.htm>

He continues to be involved in academic and professional organizations in the following capacity:

- Program Committee member, Breathe California, 1999-current
- Curriculum Committee Division Representative (SMT), 1999-2001
- Curriculum Committee Co-Chair, 2001-2003
- California Society for Respiratory Care – Greater Bay Area Region President, 2003-2005
- California Society for Respiratory Care, Education Chair, 2002
- Developed and currently oversees the ethics program for the California Society for Respiratory Care. This is a continuing education component required by the Respiratory Care Board for the state of California.

Professionally, Ray regularly attends conferences and workshops pertaining to the academic setting and to his Respiratory Therapy profession.

Ray has also recently completed his Master's degree in Public Health (Spring 2008). For his culminating project, he assessed prevalence and perceptions of smoking on the Skyline campus and worked with stakeholders to identify an effective policy aimed at reducing environmental smoke exposure on campus.

Brian M. Daniel, Coordinator for Clinical Education is a licensed Respiratory Care Practitioner who has now been a part of the program faculty since 2004. He continues his involvement in basic science and clinical research as a co-investigator into clinical outcome studies of patients with the "Acute Lung Injury" and for "Mechanisms of Alveolar Fluid Clearance" (NHLBI funded). This effort has led to co-authorship of the following papers over the past 6 years:

- The NHLBI ARDS Clinical Trials Network: Comparison of Two Fluid-Management Strategies in Acute Lung Injury. *New England Journal of Medicine*, June 15, 2006; 354:24
- The NHLBI ARDS Clinical Trials Network: Pulmonary-Artery versus Central Venous Catheter to Guide Treatment of Acute Lung Injury. *New England Journal of Medicine*, May 25, 2006; 354:21

- The NHLBI ARDS Clinical Trials Network: Higher versus Lower Positive End-Expiratory Pressures in Patients with the Acute Respiratory Distress Syndrome. *New England Journal of Medicine*, July 22, 2004; 351:4

Brian's expertise in the respiratory care of critically ill patients has led him to author and co-author the following textbook chapters:

- Noninvasive Positive Pressure Ventilation. Chapter contribution for "Critical Care Nursing Secrets 2nd Edition" HM Schell, KA Puntillo (eds.), Hanley & Belfus, 2006
- General principles of managing a patient with respiratory failure. In Chest Medicine 5th Edition, RB George, RW Light, MA Matthay, RA Matthay (eds.), Lippincott Williams & Wilkins, 2005, pp. 517-532.
- Respiratory Care. In Miller's Anesthesia 6th Edition, Ronald D Miller, editor. Elsevier 2005, pp. 2811-2830

He is involved in the following academic and professional organizations:

- Heath and Safety Committee (Skyline College)
- Education Policy Committee (Skyline College)
- Education Section of the American Association for Respiratory Care
- Allied Health Section of The American College of Chest Physicians

Part-time faculty have shown professional growth as well. The program hired a laboratory assistant who is in the process of being promoted to "team leader" in the medical facility where he practices respiratory care. His accomplishments over the past year includes in-service and updates to peer Respiratory Care Practitioners and other medical staff.

All part-time clinical faculty hold leadership roles in their hospital communities and have been involved in outreach seminars sponsored by their institutions. Over the past year this nation has been significantly impacted by the H1N1 pandemic which affected 30% - 50% of US population infected. This resulted in 1.8 million US hospital admissions and 300,000 admissions to intensive care units. One the programs clinical part time faculty has been a community leader and resource in the management of patients admitted to intensive care with severe respiratory failure secondary to H1N1.

All full and part time faculty are required to maintain membership in their state and national professional organizations: California Society for Respiratory Care and American Association for Respiratory Care.

2. Describe the orientation process for new faculty and staff (include student workers such as tutors and aides).

Over the past 6 years, the program completed the orientation of a laboratory assistant in efforts of improving learning outcomes in one of the programs more challenging courses. Since the last review, the program has hired two new part-time clinical staff. To prepare them for mentoring students they were given an orientation packet which included a syllabus with course content pertinent to their role as clinical instructors. Also included in this packet are materials outlining expectations of a clinical preceptor and is covered by the Coordinator for Clinical Education. Regular follow up which might include "side-by-side" instruction where the new staff person and the coordinator would work together with students; meetings periodically to discuss students and program expectations have worked well.

As students perform patient care in the clinical setting, they are paired with licensed practitioners who can impart their experience. Though these practitioners hold excellent competence and expertise, some lack the full experience as mentors supporting the learning process for students. To address this issue, the program is endeavoring to develop and pilot a “Clinical Preceptor Training Program”. This will not only benefit new faculty who are affiliated with the program but should prove to benefit the community at large. Respiratory Therapy department directors have voiced support and have committed sending their licensed practitioners who work the program’s students through the training program.

3. *If recruitment of new and/or diverse faculty is needed, suggest recruitment techniques.*
None needed at this time.

Facilities, Equipment, Materials and Maintenance

1. *Discuss the effectiveness of the facilities, equipment, equipment maintenance, and materials for the program to meet its goals and focus. Include if they impact success and if they are accessible to all students.*

During the last program review many deficiencies were discussed here. The program is happy to report that with the newly renovated laboratory, much of this has been addressed. The program is no longer required to share laboratory space giving students more flexible access to equipment and classroom resources. The new laboratory has state of the art multimedia equipment including an additional library and computer room giving students a place where they can work individually or in small groups.

With the new respiratory therapy laboratory came much of the new and state-of-art equipment and supplies that was also requested. However, there was an important equipment request that has yet to be filled, a simulation station/mannequin.

In the field of medicine and health care there continues to be a growing body of evidence in support of using simulation mannequins in improving learning outcomes. Simulation-based training has been demonstrated to lead to clinical improvement in patient care. One study showed that health care students trained on simulators were more likely to adhere to the advanced cardiac life support protocol than those who received standard training for cardiac arrest patients. In other areas of medical training, simulation has been demonstrated to lead to improvements in medical knowledge, comfort in procedures, and improvements in performance during retesting in simulated scenarios.

Multiple studies have demonstrated the effectiveness of simulation in the teaching of basic science and clinical knowledge, procedural skills, teamwork, and communication as well as assessment at the undergraduate and graduate medical education levels. A simulation station at Skyline could be housed in the Respiratory Therapy program but be a shared resource with the other allied health programs such as Surgical Technology and Emergency Medical Technician.

External accreditation requires records to be maintained for student statistics, progress, competence as well as outcomes data that include student, graduate, employer and community surveys. Currently the program maintains this information though old fashioned paper documentation. This form of documentation is cumbersome, time consuming and does not multiple faculty and clinical sites to easily and quickly access this information as student move through their clinical rotations. Many health programs are utilizing electronic data management systems that track student information. DataARC is an accepted electronic data management system standard for Respiratory Therapy programs throughout the United States. The web based system allows students to clock their clinical hours, track their daily

procedures, document competency evaluations, and automate and collect survey data. This system was presented to the program's advisory board and received support for instituting the system. Program faculty will present this information to their dean and request approval.

2. List projected needs.

As discussed earlier in this self study, the following are projected needs identified for the program:

- Develop and pilot a "Clinical Preceptor Program" with the intention of offering the workshop yearly. This will require initial funding for developing the workshop content and yearly funding for compensating workshop instructors.
- Simulation mannequin/station
- DataARC electronic data management system

3. Describe the use of technology in the program and discuss if technology is current and comparable to other college and business or industry.

Unlike other allied health profession the field of respiratory care incorporates much hand on with varying degrees of technology. This might include the use of simple, hand held devices such as aerosol generators to equipment such as mechanical ventilators used to provide respiratory support.

Establishment of the allied health library in newly renovated building 7 provides more computer stations to the Respiratory Therapy students. This expanded resource has allowed the program to add a greater component of computer based learning. Full software suites of respiratory programs were purchased and installed in the allied health center. Students find them a great tool in their learning.

The new "smart classroom" allows the program to easily integrate various technologies (PowerPoint, video, over-head projection) to enhance classroom and laboratory instruction.

4. If appropriate, describe the support the program receives from industry. If the support is not adequate, what is necessary to improve that support?

A great strength of the program support it receives from the Respiratory Therapy community. This is demonstrated by the high level of activity from the advisory board which is comprised of community members, students, faculty, and administrators. Respiratory Therapy departments also support the program by donating disposable equipment for students to use in the laboratory setting. The community also provides "in kind" clinical instruction as students perform their clinical rotations.

Budget Request

1. What resources (staff, facilities, equipment and/or supplies) will be needed in the next six years?

- Develop and pilot a "Clinical Preceptor Program" with the intention of offering the workshop yearly. This will require initial funding for developing the workshop content and yearly funding for compensating workshop instructors.
- Simulation mannequin/station. The program will seek funding through the college but will also seek grant support. Basic systems costs begin at \$50,000.
- DataARC electronic data management system. Yearly service fees are approximately \$400.00. Students must also pay \$60.00 for access while enrolled in the program.

2. If appropriate, discuss methods the program could share resources with other programs in the College and District.

The program collaborates with Surgical Technology and EMT to share resources when applicable.

Program faculty are aware of the simulation station at CSM however, given the distance between Skyline's campus and CSM sharing this resource is impractical at this time.

PART D: Leadership and Governance

1. What leadership roles do the faculty and staff of your program hold in the college?

Ray Hernandez has been actively involved in leadership at Skyline College. He co-chaired the college accreditation process with Donna Bestock. This process spanned two years and yielded an excellent outcome for the college. Ray Hernandez also serves as the faculty advisor for the Respiratory Therapy Club and helps these students cultivate their leadership skills and civic engagement with the respiratory therapy profession and the greater college community.

Brian Daniel participates on the campus health and education policy committees. He has also been involved with outreach efforts designed at increasing campus awareness of the Respiratory Therapy Programs.

Although the program's part time clinical faculty do not play leadership roles specifically at Skyline College, they do play a significant role in the community by offering individual expertise such as described in Part C under faculty and staff achievements.

2. How do the faculty and staff in your program participate in the governance processes of the college/district?

Full time faculty actively engage in the governance process at Skyline College. Ray Hernandez continually participates in shared governance. He has been an active member of the Academic Senate since 1998 serving as a division representative, curriculum chair, and currently as Academic Senate President. In his capacity of Academic Senate President, he participates in most committees and engages with other faculty, students, and administrators at Skyline and across the district. He will seek the office of District Academic Senate President for the 2010-2011 year.

3. How do the faculty and staff in your program exercise initiative/leadership in improving practices and services related to the program?

Faculty and staff demonstrate initiative in their roles in the Respiratory Therapy Program. Full time faculty are active in their professional organizations and are well connected with the Respiratory Therapy community in the bay area and across the state. Ray Hernandez and Brian Daniel actively engage in the community by collaborating with other Respiratory Care Practitioners, being a resource to departments and individuals, and learning from the health care community.

This is also true of the part time faculty. At their respective hospital sites, they are team leaders and are involved in establishing and implementing practice policy and procedures. These efforts are shared with the respiratory community at large.

The Respiratory Therapy program also reaches out to the greater bay area community by sponsoring an annual graduate job fair. This event invites all bay area respiratory therapist employers and also the other four respiratory therapy programs in the area. The program also sponsors an annual bay area human resource survey and collects data to aid the program in meeting the needs of the community. This information is also shared with the employer survey participants. Efforts such as these demonstrate program faculty initiative and leadership which improve program practices and services.

Participation in professional outreach such as: speaking/presenting at respiratory care conferences and meetings; presentations at local hospitals and medical centers. A presentation that we are developing and have offered to at least one of our local hospitals is a "preceptor's training" module.

PART E: Action Plan

1. Describe the program's plan for addressing areas of improvement.

- Perform a comprehensive review of curriculum and modify based on needs and goals. A taskforce convened and made its recommendations. One new course was added and four courses were modified to meet realized goals. As of completion of this self study, program faculty anticipate the changes to take place in Fall 2011 pending curriculum committee approval.
- Develop and pilot a "Clinical Preceptor Program" with the intention of offering the workshop yearly. This will require initial funding for developing the workshop content and yearly funding for compensating workshop instructors. Program faculty will seek grant funding over the next year to develop the curriculum and will pilot the workshop shortly thereafter.
- Acquire a simulation mannequin/station. The program will seek funding through the college but will also seek grant support. Basic systems costs begin at \$50,000. Program faculty are in the process of researching and seeking applicable grants. The program's advisory board has been made aware of the goal of establishing a simulation station in hopes that members of this board might offer some insight into resources available for such an effort.
- Implement DataARC electronic data management system. Yearly service fees are approximately \$400.00. Students must also pay \$60.00 for access while enrolled in the program. Program faculty will present this information to their dean and request approval.

Skyline College Program Review

Worksheet for Enrollment, Performance and WSCH/FTE

Respiratory Therapy Program

Weekly Student Contact Hours – WSCH

Report the 3 previous **Fall** semesters with the most recent on the right.

Year	2006	2007	2008
WSCH	1412	957	905

Please comment on program enrollment and expected trends.

Since the last review, the program has seen a consistent increase in interest in and enrollment. With the downturn in the economy students see health care options as a viable and stable career and thus are willing to invest the time and commitment necessary to become a Respiratory Therapist. Program faculty have worked to increase visibility of the program by collaborating with the counseling department to ensuring counselors are aware of specific requirements needed for application, enrollment, and completion of the program. Program faculty also reach out to students enrolled in science courses at Skyline to provide program information and demonstrate relevance of course content to the Respiratory Therapy major. Each year the application pool increases. The open application period Spring 2009 yielded a record high of 110 qualified applicants. It is anticipated that number will continue to rise with continued outreach efforts and will be a popular option for students in the community.

FTE and WSCH/FTE (LOAD)

Report the previous 3 **Fall** semesters with the most recent on the right

Resp Therapy	Fall 06	Spr 07	Fall 07	Spr 08	Fall 08	Spr 09
FTE	2.54	1.69	2.03	1.75	1.87	1.75
WSCH/FTE	555	808	472	623	485	665

Skyline College	2006	2007	2008
FTE	166.01	170.20	177.50
WSCH/FTE	553	563	591

Please comment on the comparison of this program to College trends.

Historically the WSCH/FTE has been consistently lower in the Fall and higher in the Spring compared to college trends. The maximum capacity for enrollment is 25 students. Lecture/lab classes run loads anywhere between 280 and 477. The program only offers these courses once per academic year to minimize the low productivity. Conversely the clinical courses provide very high loads much greater than college trends. During the Spring semester, the students spend much of their time at the hospitals

performing clinical instruction. Affiliated hospital Respiratory Therapy departments provide “in kind” support to the program decreasing FTEF cost to the college.

The program is limited in capacity for two reasons: clinical placements and instructor/student lab instruction. Program faculty have assessed, inventoried, and maximized clinical opportunities in San Francisco and northern San Mateo counties. In Fall 2006, with approval of the program advisory committee, the program allowed 5 more students into the program to meet increasing interest. This increased load burdened the clinical sites and negatively impacted the student’s clinical experience. The increased enrollment also negatively impacted lab instruction resulting in less availability for the instructor to provide individual support and decreased equipment access per student.

Retention and Success

Report data on program retention and success rate with the most recent on the right.


Resp Therapy	2006	2007	2008
Retention	98%	97%	100%
Success	98%	93%	97%
Surgical Tech	2006	2007	2008
Retention	88%	94%	96%
Success	97%	100%	96%
Skyline College	2006	2007	2008
Retention	68%	68%	68%
Success	83%	82%	84%

Please comment on the programs success and retention rate. Include factors that affect the rates and how college services are used to provide multiple avenues for student success.

The overall retention and success rates remain very high and slightly higher than the college’s other health care program for over the past three years. The program is two years in length and does see the highest attrition during the first semester with an average of 12% over the past three years; well below the external accrediting body’s threshold of 30%. Some (vary from year to year) of these students return in subsequent years and ultimately are successful in completing the program. Past the first semester, the program sees very little attrition resulting in high retention and success rates. This can be attributed to the relationships the students build with each other and program faculty, and maintain throughout the program. The cohort experience proves to be a support mechanism as they move forward each semester. Collectively the students realize a sense of community and commitment to attend classes each day, complete homework, and form study groups to help each other learn the material and prepare for tests. Program faculty have maintained strong ties with the counseling department to ensure students review their academic plan at least once per semester helping student to stay “on track”. Particularly, Counselor Don Biederman keeps track of the Respiratory Therapy students and ensures that they have applied for graduation as they complete their final semester of the program.

Male and female retention and success rates have been consistently equal over the past five years. There has been a gap in success for African-Americans and Hispanic students as compared to other ethnic groups. This data may reflect just one or two students per cohort.

African-American	06/07	07/08	08/09
Retention	100%	100%	100%
Success	93%	82%	100%

Resp Therapy 	06/07	07/08	08/09
Retention	100%	100%	100%
Success	93%	100%	81%

Program faculty meet with each student regularly throughout the program to discuss their performance. If expectations are not being met, program faculty and the student work to identify obstacles and ways to work towards success. These meetings happen early in the semester usually after each test administered. Most common obstacles for students are family and work commitments which take focus away from program studies or lack of support from family and friends outside of school.

Program faculty will continue to work with these students and direct them to support services such as counseling to help improve success rates to close the gap.