Program Review Report

- Program Description and Scope:
  1. Program Review Title: Respiratory Therapist
  3. Review Type: Instructional Disciplines
  4. Program/Departments: Respiratory Therapy (12003)
  5. Authority Code: 43-Dean, Health & Environmental Sciences
  6. External Regulations: Yes  X  No
     Describe:
     CoARC: Commission on Accreditation for Respiratory Care. This agency specifies national standards for faculty and curriculum.

  7. Provide a brief narrative that describes the instructional program/discipline.

     Respiratory Care is an allied health care specialty directed at the diagnosis, treatment, management and care of patients with deficiencies and/or abnormalities with the cardio-respiratory system. Upon completion of the program, graduates are eligible to sit for the CRT (Entry Level Certified Respiratory Therapist Examination) and the RRT (Registered Respiratory Therapist Examinations) of the NBRC (National Board for Respiratory Care.) Upon successful completion of the CRT Examination, the graduate is eligible for licensure in the state of California as an RCP (Respiratory Care Practioner.)

     The RT program is designed to be completed in two years. All lab courses are conducted at the Newark Campus. Students complete a total of 42.5 units in RT and 21 units in supporting course work totalling a required 63.5 units to graduate.

     The first group of students were admitted in 1980. Initial full accreditation was received in 1983. The program has enjoyed full accreditation since that date. The last accreditation visit occurred in 2010. The next accreditation visit is scheduled for 2019.

  8. Describe how the program specifically serves students, faculty and staff.

     The Ohlone College Respiratory Therapist Program, offering an Associate of Science Degree in Respiratory Therapy, is the only community college RT program offered in Alameda and Contra Costa counties. San Mateo, Santa Clara and Napa also offer a community college based RT program.

     The entry level RRT will be prepared to function in the domain of respiratory care after licensure. The program is structured so students can be prepared to care for a variety of patients in varied healthcare settings, as well as in the home. Clinical experiences are selected to expose students to socio-economically and culturally diverse settings as well as multi-cultural diverse patient populations. Students are educated to care for patients across the
life span, from birth to death. Students are also taught how to function in a highly interdependent health care setting, where collaboration is of paramount importance. Graduates are expected to participate in life long learning activities, as well as to engage in their professional organizations.

The program serves the faculty by employing two full time, tenure track faculty members. Program accreditation requires two full time faculty, one as the Program Director and one as the Director of Clinical Education. The adjunct faculty who instruct in the RT program are very well known by the program. Many are graduates from the RT program. Many have been instructing in the program for over 10 years. Through their aggregated years of practice in the RT field, the RT students are exposed to current theory and practice. As a result of their education and training methods, RT students score 100% on their certification exams.

9. Describe how the program addresses current needs and applies current technologies.

The role of the RRT is complex requiring the RT to possess the ability to critically think, supervise and manage a group of complex patients and to access a variety of information from various sources (ie. ventilators, invasive and non-invasive monitors, electronic health records). RRTs are expected to initiate respiratory care plans and deliver medications and treatments to their patients, assess outcomes and document results. This is done primarily through the electronic medical record.

To prepare students to handle current technologies, a variety of teaching methods involving technology are utilized throughout the two year curriculum. Many courses use BlackBoard as a teaching platform. Not all courses are strictly online, however some are hybrid and many are web enhanced. In many of these courses, students submit assignments online, take exams online, and use online discussion boards. Students also participate in Human Simulation. At least twice a year, RT and RN students collaborate in a well designed patient scenario.

The RT program is one of the three CTE programs located in the Health Science division. In 2011, the California EDD stated that the demand for RTs will increased by 26% between the years of 2008-2016. This number equates to 2,300 new jobs. Of these new jobs 140 are forecasted to be located in Alameda County. The 2012 State of California EDD statistics indicate that between 2010 - 2020, 17,900 Respiratory Therapists will will be required to meet the employment needs of the state. This translates to an increase of 3,700 new jobs and a 26.1% increase in employment opportunities.

10. Discuss the impact of the program on the college and/or other programs.

The impact of the RT Program on the college lies in the benefit the college receives from the excellent reputation for respiratory therapist education and
training. The RT program has posted a 100% pass rate on certification. The RT is the second oldest established CTE program in the Health Science Division, RN established in the early 1970's and PTA established in 1996. The benefit to other programs is derived for the undergraduate courses that are pre-requisites to entry into health science courses. In addition, faculty from RN and PTA courses guest lecture and conduct skills labs for other disciplines. We can say the Health Science CTE programs model an interdisciplinary healthcare team, thus modeling actual practice in healthcare venues.

11. Discuss the impact of the program on the community and the impact of the community on the program.

The Respiratory Therapy Program has enjoyed long and lasting relationships with the clinical sites since it was first established in the 1970s. Most adjunct clinical faculty also work at the site where they teach. The faculty and students help to manage and run an Asthma Clinic in Oakland. Students participate in community health fairs. Several past graduates offer a yearly scholarship to deserving and qualified students. Students are required to participate in community service opportunities where they serve a diverse population with education on asthma, smoking cessation, and general respiratory health issues.

- **College Mission**
  1. **Mission Statement**
     The mission of Ohlone College is to serve the community by offering instruction for basic skills, career entry, university transfer, economic development, and personal enrichment for all who can benefit from our instruction in an environment where student learning success is highly valued, supported and continually assessed.

  2. **Vision Statement**
     Ohlone College will be known throughout California for our inclusiveness, innovation and superior rates of student success.

  3. **Core Values, Goals & Objectives:**

- **College Core Values**
  - We provide life-long learning opportunities for students, college personnel and the community.
  - We promote diversity and inclusiveness.
  - We maintain high standards in our constant pursuit of excellence.

- **College Goals/Objectives**
  1. **Through innovative programs and services, improve student learning and achievement.**
     1. By 2013, have in place an ongoing system for identifying and assessing student learning outcomes at the program and course levels, which includes faculty dialogue and appropriate improvement plans.
     5. By spring 2013, increase to 600 the number of students transferring to UC and CSU.
     6. By spring 2013, the number of students receiving associate degrees to a rate at or above the peer group average.
     8. By 2015, increase the number of students taking 12.0 units or more per
semester to a rate of 30% compared to headcount enrollment.

2. Support the economic vitality of the community through educational programs and services that respond to identified employment needs.

2. Within the context of the CTE Strategic Plan, by 2012, identify needs of local employers and create responses through our existing programs, contract education, and new program development.

4. By 2013 provide opportunities across the curriculum for students to acquire key skill sets and concepts that will help them succeed in the workplace.

4. Briefly describe how the program supports the college mission, vision selected college values.

The RT program supports the college mission statement, vision and other goals demonstrated by the following actions.

College mission statement: The RT program offers full time education for RT students. The program offers theory and clinical instruction as career entry into the field of Respiratory Therapy. RT program is one of three CTE programs in the health science division. The California EDD estimates that there will be a 26.1% increase in RT positions between 2010 and 2020. The EDD estimates that 140 job openings will occur in Alameda County. The graduates will be well positioned to find jobs after graduation.

College Vision: All prospective students who meet admission criteria may apply to the RT program. The RT students have passed the licensing exam with a 100% pass rate. This rate can be compared to the three program located in the adjacent counties: Foothill pass rate is 100%, Skyline pass rate is 95% and American River College pass rate is 86%.

Values: Diversity: Sensitivity to cultural diversity among students and patients is threaded throughout the program. Every human being is unique with complex needs.

Lifelong learning: The RT program encourages students to pursue a higher degree in the field as well as to engage in activities of their local and national professional organizations.

5. Briefly describe how the program supports selected college goals.

The RT program supports college goals 1 and 2.

Obj 1: Student learning is measured through SLO review. The use of technology in the classroom, human simulation and expertise of FT and adjunct faculty add to student retention, completion and success.

Obj 2: The RT program offers a 2 year Associate of Science Degree in
Respiratory Therapy. The California EDD estimates a 26.1% increase for RTs between 2010 and 2020. Since Ohlone College is the only RT program offered in Alameda and Contra Costa Counties, RT graduates are in demand. According to the 3 year average based on our CoARC report, 95.9% of Ohlone College RT graduates who sought employment are currently employed.

6. Briefly describe how the program supports selected college objectives.

Goal #1. Objective #1.

The RT program submits a yearly evaluation report to the CoARC accreditation agency, and will perform a yearly Ohlone College program review update. Employer, graduate, and current student evaluations, collected via an electronic data base, are tabulated yearly. Performance by graduates on three different national examinations following graduation and attrition and retention rates are examined and reported to CoARC annually.

The RT program has reviewed all PSLOs and is in the process of reviewing each course SLOs.

Goal 2, Objectives 2 and 4.

The RT program is one of the three identified CTE programs located in the Health Science Division. The yearly advisory board meeting discusses current hospital practices and any new technology introduced. The RT curriculum is reviewed to include new theory and clinical practices.

The RT program strives to educate and train RTs who can work in local health care facilities to meet the needs of patients and to meet the local market need.

• Program SLOs & Assessment
  1. Program SLO -

   Qualify nationally for Registered Respiratory Therapist (RRT) status.

   a. Indicate program assessment strategies used.
      i. Rubrics
      ii. Capstone course
      iii. Performance Assessment
      iv. Skills Assessment
      v. Department Testing
      vi. Vendor or Industry certification examination

   b. Describe the criteria and standards used to appraise student work.

      Skills check off lists are used in lab/clinical.
Exams are graded on A to F scale.
Papers are grades on A to F scale.

Rubrics are used to evaluate clinical performance.
CoArc mandated skills assessments utilized in clinical sites to evaluate achievement of minimum required competencies.

c. Enter assessment results and analyze student success in achieving this program SLO.

For the past two years all students taking the RRT exam have passed at the 100% rate on their first or second attempt. According to [www.rcb.ca.gov](http://www.rcb.ca.gov) Ohlone College 2010 pass rate was 94.74% for first time takers and 100% for second time takers. In 2011 the pass rate was 100%. In 2012 all 85% of the graduated students have passed at a 100% level. 15% have not taken the exam at this time.

In 2010 the national pass rate was 77.27% and in 2011 the national pass rate was 77.84%. In 2012 the national pass rate was 52.32%. Ohlone College consistently exceeds the national average on exam pass rates.

d. Describe revisions in curriculum or teaching strategies implemented to promote student success.

The addition of human simulation to selected courses has the potential to increase student success as they apply theory to practice.

According to CoARC 2011 annual report, Ohlone College had 13% attrition rate, two students transferred to programs closer to their homes and one student dropped out due to family illness. We have not had any students leave the program due to academic failure. Based on the 3 year average in the CoArc Annual Report positive job placement is 95.9%.

e. Future Action (Improvements)
Maintain current student learning plan

2. Program SLO -

Qualify for licensure in the state of California.

a. Indicate program assessment strategies used.
   i. Rubrics
   ii. Capstone course
   iii. Skills Assessment
   iv. Department Testing
   v. Vendor or Industry certification examination
b. Describe the criteria and standards used to appraise student work.

RT graduates take two examinations. One for state level and one for the national level.
The same criteria and standards to appraise work are appropriate for SLO 1 and SLO 2.

c. Enter assessment results and analyze student success in achieving this program SLO.

The same assessments are appropriate for SLO 1 and SLO 2.

d. Describe revisions in curriculum or teaching strategies implemented to promote student success.

The same assessments are appropriate for SLO 1 and SLO 2.

e. Future Action (Improvements)

Maintain current student learning plan

3. Program SLO -
- Demonstrate appropriate critical thinking skills, time management skills, interpersonal communication skills and technical skills necessary to provide competent respiratory care in multidisciplinary settings.

a. Indicate program assessment strategies used.
   i. Rubrics
   ii. Performance Assessment
   iii. Skills Assessment

b. Describe the criteria and standards used to appraise student work.

Students are evaluated clinically by a clinical evaluation tool. The students achieve a P/NP.

See example of clinical evaluation tool in the attachments section.

c. Enter assessment results and analyze student success in achieving this program SLO.

We had a 100% pass rate in all clinical rotation in the program during the 2011 - 2012 academic year.

d. Describe revisions in curriculum or teaching strategies implemented to promote student success.

No revisions are indicated at this time.

e. Future Action (Improvements)

Maintain current student learning plan

4. Program SLO -

Demonstrate the cognitive, psychomotor, and affective skills necessary to assist the physician in the diagnosis, treatment and management of patients with cardiopulmonary diseases and disorders.
a. *Indicate program assessment strategies used.*
   
i. Capstone course
   
   ii. Performance Assessment
   
   iii. Skills Assessment
   
   iv. Department Testing
   
   v. Other

   RT 136 includes a preceptorship as a capstone project. Simulation training has been added to all lab courses to better prepare students for their clinical assignments.

b. *Describe the criteria and standards used to appraise student work.*

   Students apply cognitive, psychomotor and affective skills in both skills lab and in clinical setting. The students receive P/NP grades in their clinical courses. A clinical evaluation tool is used to appraise student performances. The standards come from CoARC accreditation policy.

c. *Enter assessment results and analyze student success in achieving this program SLO.*

   All graduating RT students take the Self Assessment Exam (SAE) for the RRT Clinical Simulation Exam. We have reviewed and compared data from 2011 and 2012. This SAE is an indicator of future success in passing this exam after graduation. The exam consists of two parts, Information gathering and Decision Making. For the past two years the national average for these are 187 and 79 respectively. Our students demonstrated higher than the national average for both years reviewed. In 2011 the scores were 198.6 and 83.8. In 2012 the scores were 192.8 and 84.3. These results translate to a consistently high pass rate on the RRT Exam post graduation. In 2011 the pass rate was 100%. In 2012 there is a 100% pass rate for the eighteen of twenty-one students who have taken the exam at this point.

d. *Describe revisions in curriculum or teaching strategies implemented to promote student success.*

   As a result of this specific assessment areas of focus have been identified. Areas in the Decision Making category that have scored low have been identified and future simulation training programming will be adjusted to address these specific deficiencies.

e. *Future Action (Improvements)*

   Maintain current student learning plan

   - **SLO Matrix**

     | Course  | SLO-1 | SLO-2 | SLO-3 | SLO-4 |
     |---------|-------|-------|-------|-------|
     | RT 101  | I     | I     | I     | I     |
     | RT 101L | I     | I     | P     | I     |
     | RT 102  | I     | I     | P     | P     |
- **SLO Matrix Comments**
- **Course SLO & Assessment**

**RT 136 Critical Care Clinical Practice**

1. Demonstrate the ability to obtain and evaluate cardiopulmonary data, and correctly and confidently offer initiation and modification of therapeutic modalities in the care of the critically ill patient.
2. Demonstrate the ability to assess and treat patients in emergency situations, including cardiovascular and trauma emergencies.
3. Demonstrate the ability to treat, evaluate and make appropriate recommendations for critically ill patients receiving respiratory care
4. Demonstrate the ability to set up, maintain, evaluate and adjust parameters for patients on continuous mechanical ventilation.
5. Demonstrate the ability to assume the full spectrum of daily responsibilities assigned to the critical care respiratory therapist.

| RT 103 | P | P | I | I |
| RT 104A | P | P | P | I |
| RT 104B | P | P | P | I |
| RT 105A | P | P | M | I |
| RT 105B | P | P | M | I |
| RT 106 | P | P | M | I |
| RT 107 | P | I | M | I |
| RT 108 | I | I | I | I |
| RT 130A | I | I | P | P |
| RT 130B | M | M | M | M |
| RT 130L | M | M | M | M |
| RT 131A | I | I | I | I |
| RT 131B | P | P | P | I |
| RT 132 | P | P | M | I |
| RT 133 | P | P | P | I |
| RT 134 | I | I | P | I |
| RT 134L | P | P | P | I |
| RT 135 | I | I | M | I |
| RT 136 | P | P | M | I |
| RT 137 | I | I | P | I |
| RT 138 | P | P | P | I |
| RT 139 | I | I | P | I |
| RT 139L | P | P | P | P |
| RT 145 | I | I | P | P |

**Indicate planned course assessment strategies**
Rubrics
Culminating Project
Performance Assessment
Skills Assessment
Department Testing
Vendor or industry certification examination

**Describe the criteria and/or performance standards used to appraise student work.**

RT136 is Pass/Fail based on a clinical evaluation tool demonstrating both performance and skills assessments.

**Enter assessment results and analyze student success in achieving course SLOs.**

Based on CoARC statistics (2011) graduating students have achieved a 100% and 100% success rate in passing RRT Exam and California Licensure Exam.

**Describe revisions in curriculum or teaching strategies implemented to promote student success.**

No changes anticipated.

**Future Action (Improvements)**

Maintain current student learning plan

- **Student Achievement: A series of measures including course completion, course retention, persistence, program completion, and others.**
  1. **List expected student achievement outcomes:**

     Student pass rates on licensing examination.

     Retention rates

     student satisfaction

  2. **Analyze changes in data, identify trends, and provide possible contextual explanations for each measure used. (Example measures include: course completion, course retention, persistence, program completion).**

     According to the CA Respiratory Care Board, the national pass rate for licensure is 77.27% in 2010. Ohlone's rate was 97.4% for first time takers (19/20) and 100% for second time takers (1). In the year 2011, RT pass rate was 100%. In 2012 the RT pass rate was 100%.

     According to the CoARC three year average 95.9% of all graduating RT students who wished to work found employment.

  3. **Analyze program budget trends and expenditures. Comment on how the program can best use budget resources.**

     The RT program has utilized it's rental budget to meet the needs of introducing
newer technologies. The RT program utilizes two full time faculty to meet CoArc minimum standards and approximately 10 - 15 Adjunct Faculty depending on the semester. During the last accreditation site visit CoArc recommended adding an additional Full Time Faculty member in order to meet program needs.

4. **Analyze the program's current use of staff, equipment, technology, facilities, and/or other resources. Comment on how the program can best use these resources.**

The RT program was able to purchase a high flow oxygen device for the current year. The RT program still needs to obtain a new ventilator to meet the needs of training on new and emerging technology.

5. **Describe any additional notable program achievements (optional).**

The RT Program received the Distinguished RRT Credentialing Success Award in July of 2012. This award was given to 38 schools nationally out of a total of 440 programs currently accredited in the US. We were one of three program in the State of California to receive this award.

6. **Additional Program Table Data**

7. **Future Action**

   Current levels of student achievement indicators maintained.

- **Program Analysis**

   After assessing student learning outcomes/impacts, student/program achievement, and the status of previous program improvement objectives (PIOs), analyze the data and any identified trends, and summarize your findings. Use these data and trends to prioritize, revise, or develop new PIOs.

   1. **Describe program achievements and successes.**

      Achievements in 2012 include the 100% of students passing the certification exam on the first attempt.

      RT students are collaborating with RN students in Nursing simulations.

      Addition of simulation to RT program.

      Continuing to collaborate with additional HS/ENVS programs to enhance the simulation experience for all students.

      Investigate guest lecturing in ENVS-103 "The Environment in Human Health" in areas that affect healthy breathing/lung capacity/clean air aspects.

      Recipient of CoARC **Distinguished RRT Credentialing Success Award, July 2012.**

      Hiring of a new Director of Clinical Education.

      Community outreach projects for all students to educate the public about respiratory care and diseases.

      In beginning talks with the Dominican Sisters Mother House to explore potential opportunities for students to assist live in residents.
Addition of a new clinical site at San Francisco General Hospital for improved critical care training.

2. According to the evidence, what are the areas needing improvement?

The program needs updated equipment, especially in the area of ventilators. Beginning in 2013 hospitals will no longer use three of our current pieces of equipment. We would like to purchase a new Draeger. Rentals of the latest technology are not possible.

- Program Improvement Objectives:
  1. Objective:

    Update instructional respiratory therapy ventilation equipment to prepare students for clinical rotations and future job skills using current industry standards.

    a. Action Plan
    Year 1:

    Purchase a new Draeger ventilator to replace obsolete technology. Include maintenance and repair packages. Approximate cost of new ventilator is $25,000.

    Year 2:

    Purchase maintenance and upgrade packages as developed by Draeger to remain current with hospital equipment. Approximate cost is $200/year.

    Year 3:

    Purchase adjunct modules that integrate with the Draeger ventilator. Approximate costs is $1000 - $3000 depending on which module is purchased.

    b. Staffing
    Year 1:

    No additional staffing required.

    Year 2:

    No additional staffing required.

    Year 3:

    No additional staffing required.
c. Assessment Plan: List Assessment Strategies

Year 1:
Students demonstrate satisfactory proficiency on laboratory evaluation tools in the use of current ventilator technology.

Year 2:
Same as above with the addition of clinical instructor evaluations to measure proficiency within the clinical setting.

Year 3:
Same as above.

d. Which college goal(s) does this program improvement objective work to achieve? Clearly describe how your PIO will help achieve one or more of the college goals and objectives, has impact beyond the particular department, and contributes to student learning/success.

1. Through innovative programs and services, improve student learning and achievement.
   Rationale:
   Updated ventilator technology offers many advantages to Respiratory Therapist education such as developing interactive critical thinking, improving technical skills in a simulated environment thus providing opportunities for clinical decision making that mirrors real patient care scenarios.

2. Support the economic vitality of the community through educational programs and services that respond to identified employment needs.
   Rationale:
   The Ohlone College Respiratory Therapist Program is the only community college based program serving students in Alameda, Solano, and Contra Cost Counties. Maximize the students ability to seamlessly integrate into the regional workforce with education and training on the latest technology.

4. Use human, fiscal, technological, and physical resources responsibly, effectively, and efficiently to maximize student learning and achievement.
   Rationale:
   In conjunction with the many available resources on the newark Campus, continue to introduce and utilize current ventilator technology as a teaching/learning tool thus contributing to the ongoing 100% pass rate of
students on the NBRC Entry Level Exam.

2. PIO Assessment
   a. Enter assessment results with analysis.

   Students are learning how to set, adjust, and monitor ventilators. However, without the most current ventilator technology inhouse the teaching of current industry standards can be in conceptual theory only. Purchase of our own equipment is the only current option for meeting the educational needs of the students on the latest equipment available in the clinical settings.

   b. Describe how PIO achieved one or more of the college goals and objectives, had an impact beyond the particular department, and contributed to student success/learning.

   This PIO meets goal #2. The EDD statistic of 26.1% increase in available jobs in the 2010 - 2020 analysis and the continued success of the students in their post graduate exams and successful job placement data.

   c. Analyze the impact of reallocation or addition of resources. If money or resource was not used, give rationale.

   The program receives funding through Fund 10 and Perkins Money.

   d. Future Action
      Current level of focus maintained. Describe.

   • Outside Review Results
      1. List each team members name and title.

         Yearly advisory board review and Annual Reporting requirement to CoArc.

      2. Discuss key feedback provided by team and how it was incorporated into the report.
         None.

   • Attached Files