2019-20 Respiratory Care
Annual Institutional Assessment
Report
On-Campus Respiratory Care Baccalaureate Program and
Degree Completion Bachelor of Science Program (On Line)

Mission, Objectives & Learning Outcomes Oregon Tech Mission:

Oregon Institute of Technology, an Oregon public university, offers innovative and rigorous applied degree completion programs in the areas of engineering, engineering technologies, health technologies, management, and the arts and sciences. To foster student and graduate success, the university provides an intimate, hands-on learning environment, focusing on application of theory to practice. Oregon Tech offers statewide educational opportunities for the emerging needs of Oregonians and provides information and technical expertise to state, national and international constituents.

On Campus Program Goals:

The Bachelor of Science Degree in Respiratory Care from Oregon Tech integrates therapeutic and diagnostic procedures and a general education core with course work in scientific and leadership principles. Registered Respiratory Therapists are physician extenders who, under medical direction, administer cardiopulmonary care, evaluate and assess pulmonary patients, and administer medications and diagnostic tests when appropriate. Their duties involve the use of the many latest advances in medical arts, sciences and technology. We assure a variety of educational experiences at Oregon Institute of Technology to not only graduate active working respiratory therapist, but to graduate professional leaders as well. This program is supported and accredited by Commission of Accreditation for Respiratory Care (CoARC) and the Northwest Regional Accreditation Agency.

On Line Program Goals:

The goals for on-line education for respiratory care are in line with the CoARC ambition of elevating currently working licensed and credentialed therapist to obtain a bachelor's degree. CoARC's specific 2020 goal is to recruit 80% of now working Associate Degree Respiratory Therapist into a Baccalaureate working therapist to assure equal opportunities as with other health care providers who have elevated

their practices with higher education. Here are our commitments to our students who choose to move forward obtaining each individuals degree completion goals:

- Provide an excellent experience in obtaining a bachelor degree offering extra credentials given by the NBRC and to assure job security/leverage within their profession.
- To facilitate education by communicating with on campus students as well as networking with others in their class learning regional differences in the career of respiratory care.
- In addition to higher level of patient quality care, we like to graduate leaders, managers, community works and education. Our program offers learning opportunities in all of these areas.
- Offering alternative work environments such as rural health and mid-level providers for our students to be aware of.
- Encourage our students to graduate coursework as it will provide a spring board into a variety of opportunities within respiratory care.

Core Theme 1:

Applied Degree Programs Oregon Tech offers innovative and rigorous applied degree programs. The teaching and learning model at Oregon Tech prepare students to apply the knowledge gained in the on line classroom to the current workplace resulting in a higher quality employee.

Core Theme 2:

Student and Graduate Success Oregon Tech foster student and graduate success by providing an intimate, hands-on learning environment, which focuses on application of theory to practice. The teaching and support services facilitate continued students' personal and academic development.

Core Theme 3:

Statewide On Line Educational Opportunities Oregon Tech offers state and nationwide educational opportunities for the emerging needs of Oregon's citizens and Respiratory Care in general. To accomplish this, Oregon Tech provides innovative and rigorous applied degree programs to students across the state of Oregon, including high school programs, online degree programs, and partnership agreements with community colleges and universities.

Core Theme 4:

Public Service Oregon Tech will share information and technical expertise to state, national, and international constituents for Program Alignment to Oregon Tech Mission and Core Themes. The Respiratory Care Program aligns with the Oregon Institute of Technology Mission Statement and offers innovative as well as rigorous applied health technologies by, not only building current professionals in a growing career, but leaders to support the profession for many years in the future. We foster student and graduate success as we provide an intimate, hands-on learning environment and experience that focuses on application of theory to practice through didactic and lab courses that improves interfacing equipment and technologies each year. In line with Oregon Techs offering with state and nationwide educational opportunities for the emerging needs of America's health care, the On-Line Respiratory Care Program has been highly regarded by Oregon State Medical Centers as well as nationwide hospitals by filling high employment needs that keep significantly growing with quality graduates.

Accreditation:

The on-campus Respiratory Therapy Baccalaureate Degree Program is, and has been accredited for many years during its existence; even in its infancy when the program was with Rogue Community College. This includes both CoARC and The NW Regional Accrediting agencies. Our standards have been recognized as high value education and job placement through accreditation with CoARC. We have been ranked within the top five programs in the United States, receiving multiple 'Distinguished Awards' for a well ran program in consecutive years, and with the latest accreditation done almost ten years ago (2011) with no flaws documented as well as given the maximum time between site visits by CoARC. This year we are prepping for a site visit to occur in 2021. Our students are continued to be recognized for high pass rates, employer satisfaction and student satisfaction with their educational outcomes employed as a job entry level employee after graduation. Our goals for our on-campus students are as follows:

- To be able to work and lead successfully in a team building environment within the health care industry.
- To provide the best Laboratory experience by using equipment that is currently used in the field of respiratory care.
- To provide may hours of clinical experience (over 1,000 hours) prior to graduation. Other than general and acute care skills, these clinical experiences also offers a variety of rotations that include diagnostics, home care, pulmonary rehabilitation, night studies, management/education and NICU.

The On-Line Respiratory Care Program is not currently accredited through CoARC though we reserve the ability to do so. There is speculation that perhaps this would be mandated in the near future. The On-Line Respiratory Care Program is currently accredited through the Northwest Regional Accrediting Body. Our on- campus program has been highly successful evidenced by 100% employer and student satisfaction surveys mandated by CoARC for several years in a row. We further meet the Core Themes of Applied Degree Programs by being one of two programs in the Northwest regions that offers a Bachelor of Science Degree in Respiratory Care. CoARC, as of January, 2017 will not recognized any new Associate Degree Programs in Respiratory Care showing a need for higher education within this profession. Lane Community College has closed its Respiratory Care Program as a partial result to these changes. We do place a 5-year limit for students to earn a Bachelor's Degree in Respiratory Care and revise curricular maps based on relevant changes to assure graduation can be met by everyone who enters this program. This is true for our On-Line program as well, but it is much more flexible. Students are able to pick and choose the busiest schedule, or the minimal amount of credits it takes to be a part of this program. With this stated, each student will need to complete the program within five-years of being accepted into either the on campus or on-line programs. These on-line students are involved in education as well by working closely with our on- campus students each term by providing detailed experiences that on-campus students have only read about. This gives our on-line students an opportunity, not only to educate with on campus students about real life scenario's, but interacts with them as they are to engaging with on-line students about the scenario assignment presented to them each week. We have been heavily involved in recruiting for our profession through seminars and city/county events as the job expectation growth is thought to almost double from % during the 2014-24 survey to the now current job growth expectations 21% 2018-28 as stated the Bureau of Labor and

Statistics. CoARC partnering with the AARC and NBRC recognizes the set goal is to have 80% of the workforce acquiring a bachelor's degree by 2020.

Advisory Board: The Respiratory Care Program Advisory Board met with the Medical Director, Dr. Michael Blumhardt and Advisory Board Chair, Kelly Angel, assure that our program and student needs are being met. Two students from each cohort, sophomore, junior and seniors met together as well as faculty and various hospital managers to discuss on going changes for the best education for our students within the career field meeting industrial standards. This committee has not met this year due to Covid 19 but will before the end of 2020. Our program has graduated our first class with the credentials of ACLS, PALS and BLS that were open to all of OIT students that has helped leverage new graduates for job entry level positions. This advisory board does not recognize the operations of on-line courses. Though the committee does not recognize the on-line program their has been conversation to work with managers, industry and Oregon Tech's On-Line program for increasing student numbers and strengthening higher education standards in the local areas.

I. Introduction and History

This Respiratory Care Program is one of only two Bachelor Degree programs in the State of Oregon, Washington, Alaska, Hawaii, and California. There are emerging bachelor programs that are becoming more popular due to the demand for job security that some states are beginning to implement evidenced by higher credentials needed to practice in some states, including Oregon. This demand is also recognized as in line with the CoARC/AARC 2020 goals for 80% baccalaureate degree achievements. This program was initially an Associates Degree Program at Rogue Community College. The Respiratory Care Associate Program transitioned to Oregon Institute of Technology in September 2004 with 25 first year students enrolled. Since then, the Commission on Accreditation for Respiratory Care (CoARC) has allowed a maximum time before its next site visit. They have found us to be within the top five performing Respiratory Care Program in the nation for several years now, and has recognized that our board passing rate and employer satisfaction is at an all-time high. Initially in this transition, the program was taught on both the Rogue Community College campus and the Klamath Falls campus of Oregon Tech over a period of six years. In the fall of 2009, Oregon Tech enrolled the first class of bachelor's degree students on campus and began phasing out the associates degree with the last class of its kind graduating in June of 2010. At this time, we began our on-line program for currently working Registered Respiratory Therapist to obtain their bachelor's in that meet the goals of CoARC, The AARC and National Board for Respiratory Care (NBRC). The Respiratory Care Program has now moved to the Klamath Falls campus entirely including our on-line support staff. The first graduates of the BS program were in March, 2012. As the program has changed since this period, so have the current curriculum evolving to stay competitive in an always changing health care system. This curriculum assures that our on-line curricular map lines up with our on-campus courses as well.

II. Program Purpose:

The latest meeting objectives and Student Learning Outcomes during the March, 2019 advisory board meeting, we continue to confirm that the September 2016 goals of the program purpose, objectives and outcomes that were reviewed and affirmed as a committee remain the same until next meeting. The goals and purposes for the On-Campus Respiratory Care Program are:

"The Bachelor of Science Degree in Respiratory Care from Oregon Tech graduating students will be well integrated in theory, to build skills with laboratory experiences and to conclude with over 1,000 hours of clinical experience and bedside manner. The goal is to meet the demands in the State of Oregon and the region of the medical industry respiratory care positions needing to be fulfilled with confident knowledgeable respiratory care practitioners. Along the way we build professional and leaders that are highly desired in the medical arena."

The goals and purposes for the On-Line Respiratory Care Program are:

"The purpose of the On-Line Respiratory Care Program, a Bachelor of Science Degree, is to offer continuing education in our profession, advancement or new options in our career and the bachelor's degree required for entry into master's degree programs. Many of the students go on to advanced degrees in business, education and more."

The purpose of the Respiratory Care Program, a Bachelor of Science Degree overall, is to provide for the regional needs for respiratory care practitioners prepared at an advanced level of a Registered Respiratory Therapist through higher education recognized by the National Board of Respiratory Care (NBRC). The secondary purpose is to meet the CoARC goals of recruiting associates to baccalaureate to elevate the profession in line with other like medical disciplines. It is a unique opportunity to build leaders and educators to promote this profession to a higher standard of care within the healthcare industry. The On-Line Respiratory Care Program highlights two factors of our successful program that includes:

- Falls under the Best On-Line College in Oregon.

- Best Buy for Bachelors Health Professions as well as Most Affordable On-Line Respiratory Programs.

Program Educational Objectives:

- Graduates will demonstrate professional behaviors consistent with employer expectations as advanced-level respiratory therapists (affective domain).
- Graduates will demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their roles as advanced-level respiratory therapists (cognitive domain).
- Graduates will demonstrate technical proficiency in all the skills necessary to fulfill their roles as advanced-level respiratory therapists (psychomotor domain).

Expected Program Learning Outcomes Students in the program will demonstrate:

1. The ability to communicate effectively in oral, written and visual forms.
2. Knowledge of the respiratory care code of ethics and ethical and professional conduct.
3. The ability to function effectively in the health care setting as a member of the healthcare team.
4. Knowledge and application of mechanical ventilation and therapeutics.
5. Knowledge and application of cardiopulmonary diagnosis and monitoring.
6. Knowledge and application of cardiopulmonary pharmacology and pathophysiology.
7. Management of respiratory care plans for adult, neonatal and pediatric patients.

Three-Year Cycle for Assessment of Expected Student Program Learning Outcomes:

The following table shows the three-year plan for assessing individual student learning outcomes.

Program Student Learning Outcome	2017-18	2018-19	2019-20
1. The ability to communicate effectively in oral, written and visual forms			●
2. Knowledge of the respiratory care code of ethics and ethical and professional conduct.		●	
3. The ability to function effectively in the health care setting as a member of the healthcare team.		●	
4. Knowledge and application of mechanical ventilation and therapeutics.	●		
5. Knowledge and application of cardiopulmonary diagnosis and monitoring.	●		
6. Knowledge and application of cardiopulmonary pharmacology and pathophysiology.	●		
7. Management of respiratory care plans for adult, neonatal and pediatric patients.			●

Table 1. Respiratory Therapy Education Assessment Cycle. PSLO summarized in Appendix 1.

Institutional Essential Educational Objectives:

The Essential Student Learning Outcomes (ESLOs) support Oregon Tech's institutional Mission and Core Themes. The assessment structure is to have three pathways (foundation, essential practice, and capstone) for each of the six ESLOs.

The scaffolding assessment in essential learning is a process that is designed to integrate the desires of what employers are looking for in graduates for entry level jobs. It is also designed to for student growth, aside from the program needs, to allow students to interact successfully now and in their future career. Over the period in which the student is pursuing a program at Oregon Institute of Technology there is a process in which the institution instills these learning objectives and are measured through an assignment or activity. The On-Line Respiratory Care Program cannot be assessed in the same way as our non-transfer on-campus students as many of their credits are transferred from other Associate Degree Respiratory Programs, general education and electives that are not included in Oregon Tech's scaffolding model.

Expected Essential Learning Outcomes Students at Oregon Institute of Technology should be able to demonstrate:

ESLO 1: Communication: OIT students will communicate effectively orally and in writing

Assessed in AAS program – General education content must include oral and written communications, psychology, and sociology. Graduates must be competent in communicating and collaborating with other members of the health care team to support comprehensive patient care. Assessed in students' communication courses transferred from previous colleges and/or through OIT courses as needed. Written communication is assessed in the BSRC program

ESLO 2: Inquiry and Analysis: OIT students will engage in a process of inquiry and analysis.

Assessed in AAS program; Critical Thinking. Graduates must be competent in the evaluation of current scientific literature and graduates must be competent in problem solving strategies related to comprehensive patient care and on-going management of patients. Assessed in students' courses transferred from previous colleges and/or through OIT courses as needed. Inquiry and Analysis is assessed in the BSRT program; on-line RCP 387; Critical Care II.

ESLO 3: Ethical Reasoning: OIT students will make and defend reasonable ethical judgments.

Assessed in AAS program, Graduates must be competent in the application of the principles of ethical reasoning, ethical decision making and professional responsibility as they pertain to the academic environment, research, patient care and practice management. Assessment activity for the BRST on-line program is evaluated; RCP

ESLO 4: Teamwork: OIT students will collaborate effectively in teams or groups.

Assessed in AAS program, Graduates must be competent in communicating and collaborating with other members of the health care team to support comprehensive patient care. Assessed in students' SPE 221; Small Group and Team Communication course transferred from previous college and/or taken through OIT. Assessment activity is address in the BSRT program; RCP 366 Clinical Simulation.

ESLO 5: Quantitative Literacy – OIT students will demonstrate quantitative literacy.

Assessed in students' MATH 243, Introductory Statistics or MATH 361 Statistical Methods course transferred from previous college and/or taken through OIT. Assessed in the BRST program through RCP 353; Advanced Mechanical Ventilation.

ESLO 6: Diverse Perspectives: The OIT student will explore diverse perspectives.

Assessed in AAS program, Graduates must be competent in communicating and collaborating with other members of the health care team to support comprehensive patient care. An important concept to communicate with healthcare providers and patients that have a variety of cultural and diverse backgrounds. With demographics changing with physicians that is becoming quite diverse, it is important to assure procedures are being performed according to guidelines. To assure the best quality patient outcomes and being sensitive to culture, religion and social status. This assessment activity will be addressed in RCP 375; Pediatric Care.

Essential Learning Outcome Assessment Annual Cycle for On-Line Respiratory Therapy:

The following table shows the six essential learning outcomes cycle for assessing on-line individual students.

Program Student Learning Outcome	**2017-18**	**2018-19**	**2019-20**	**2020-21**	**2021-22**	**2022-23**
ESLO 1: Communication: Written and oral communication between health care providers that collaborate to the patients overall care.						
ESLO 2: Inquiry and Analysis that includes critical thinking of a patients systemic approach, analysis of the data and decision making efforts.	**RCP 387 Crit Care II** ● **simulations**					
ESLO 3: Ethical Decision Making. The student will demonstrate and contrast ethical reasoning, decision making and professional responsibility.		**RCP 389 Internat. Neonate** ● **Video assignment**				

Program Student Learning Outcome	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
ESLO 4: Teamwork. The student will demonstrate the ability to work in a teambuilding environment in health care.			**RCP 366 Clinical Simulation** ● **Simulation Project**			**RCP 100 Matriculation** ● Discussions and On-Line
ESLO 5: Quantitative Literacy. The ability for the student to apply safe settings, interpret data and make clinical decisions for life saving devices based on mathematical computations.				**RCP 353 Adv. Mech Ventilation** ● **Simulations**		
ESLO 6: Diverse Perspectives. Students will explore communication and patient management approaches with physicians, their peers and patients in an ever changing healthcare environment.					**RCP 375 Pediatric Care** ● **Power Point Presentation**	

Table 2. Respiratory Therapy Education Assessment Cycle. Assigned ESLO please see Appendix 2.

IV. Summary of 2019-20 Assessment Activities: The respiratory care faculty met in Fall 2019, to discuss assessment for the academic year 2019-20 for on-line course tagged. We have identified on-line course RCP 366, Clinical Simulations as the course to gather this information. As faculty, The Essential Student Learning Outcomes (ESLO) for the year were discussed and multiple places for on-line education where these are taught and measured in the curriculum were identified, as shown in Appendix A.

ESLO #4: Teamwork.

The Institutional Rubric is for Teamwork and is used to measure this assignment. Students are tasked with creating a 50 question multiple choice exam with an attached key with references to each answers rationale. A computerized four short clinical simulation is also created in either a power point or prezi's that will interface with the exam taker. These are the two assignments for this ESLO assessment that is in-line with the National Board of Respiratory Care Examinations. This project is to be done in teams of four with each team choosing their leader to help guide the teams productivity in creating these exams that are guided by the Syllabus and through Canvas instructions. The next step is that each team is assigned to another team to evaluate each groups works and responds with critique and feedback. The third step is for each person in the team to evaluate each other in one unit at the end of the term. Lastly, this ESLO is tested by submitting these created exams to on-campus students in their junior year prior to their clinical senior year. These on-line students have been connected with on-campus students all term to share hospital experiences.

The Institutional ESLO #4 Rubric that evaluates the creation of a verifiable multiple choice exam through referencing along with four computer simulation exams that are similar and in line with the National Boards for Respiratory Care (NBRC) and meets each of these performance criteria's. This matches the NBRC quality through refencing this exam with recognized literature. The NBRC provides the credentials needed for the individual to work across the country aside from individual state licensure. This exam is to reference one out of seven credentials that can be potentially earned, but is the one references the required exam for employment and is recognized as the "Standard of Excellence" by physicians across the nation; The Registered Respiratory Therapist (RRT) TCM Exam.

ESLO 4 Teamwork: Oregon Tech students will collaborate effectively in teams or groups.

Definition Teamwork encompasses the ability to accomplish group tasks and resolve conflict within groups and teams while maintain and building positive relationships within these groups. Team members should participate in productive roles and provide leadership to enable an interdependent group to function effectively.

PERFORMANCE CRITERIA	Capstone Level (4) The following are achieved without prompting from instructor:	Practice Level (3)	Foundation Level (2)	Pre-Foundation Level (1)	Pre-Foundation Level (0)
Identify and achieve goal/purpose	• When appropriate, realistic, prioritized and measurable goals are agreed upon and documented. • All team members share the common objectives/purpose • Team achieves goal.	• When appropriate, realistic, prioritized and measurable goals are agreed upon and documented. • All team members share the common objectives/purpose. • Team achieves goal.	• Group shares common goals and purpose. • Few priorities are unrealistic or undocumented. • Group achieves goal.	• Individuals share some goals but a common purpose may be lacking. • Priorities may be unrealistic and documentation may be incomplete. • Group may not achieve goal.	• Clear goals are not formulated or documented; thus all members don't accept or understand the purpose/task of the group. • Group does not achieve goal.
Assume **roles** and responsibilities	• Members consistently and effectively fulfill	• Members consistently and	• Members often fulfill roles and	• Some members may not fulfill roles	• Members do not fulfill roles

	roles and responsibilities. • Leadership roles are clearly defined and/or shared. • Members move team toward the goal by giving and seeking information or opinions, and assessing ideas and arguments critically. • Members are all self-motivated and complete assignments on time. • Most members attend all meetings. • Members reflect on group processes, provide feedback to other group members and make changes as necessary.	effectively fulfill roles and responsibilities. • Leadership roles are clearly defined and/or shared. • Members move team toward the goal by giving and seeking information or opinions, and assessing ideas and arguments critically. • Members are all self-motivated and complete assignments on time. • Most members attend all meetings. • Members reflect on group processes, provide feedback to other group members and make changes as necessary.	responsibilities. Leadership roles are generally defined and/or shared. • Generally, members are motivated and complete assignments in a timely manner. • Many members attend most meetings.	and responsibilities. • Leadership roles are not clearly defined and/or effectively shared. • Some members are not motivated and some assignments are not completed in a timely manner. • Meetings rarely include most members.	and responsibilities. • Leadership roles are not defined and/or shared. • Members are not selfmotivated and assignments are not completed on time. • Many members miss meetings. • Members continue processes that prove nonfunctional.
Communicate effectively	• Members always communicate openly and respectfully. • Members listen to each other's ideas. • Members support and encourage each other. • Communication patterns foster a positive climate that motivates the team and builds cohesion and trust	• Members always communicate openly and respectfully. • Members listen to each other's ideas. • Members support and encourage each other. • Communication patterns foster a positive climate that motivates the team and builds cohesion and trust.	• Members usually communicate openly and respectfully. • Members often listen to most ideas. • Members usually support and encourage each other.	• Members may not consistently communicate openly and respectfully. • Members may not listen to each other.	Members do not communicate openly and respectfully. • Members do not listen to each other. • Communication patterns undermine teamwork.
Reconcile disagreement	• All members welcome disagreement and use difference to improve decisions. • All members respect and accept disagreement and employ effective conflict resolution skills. • Subgroups absent.	• All members welcome disagreement and use difference to improve decisions. • All members respect and accept disagreement and employ effective conflict resolution skills. • Subgroups absent.	• Many members welcome disagreement and use difference to improve decisions. • Most members respect and accept disagreement and work to account for differences. • Subgroups rarely present.	• Few members welcome disagreement. Difference often results in voting. • Some members respect and accept disagreement and work to account for differences. • Subgroups may be present	• Members do not welcome disagreement. • Difference often results in voting. Subgroups are present.

Share appropriately	• All members contribute significantly to discussions, decision making and work. • The work product is a collective effort; team members have both individual and mutual accountability for the successful completion of the work product.	• All members contribute significantly to discussions, decision making and work. • The work product is a collective effort; team members have both individual and mutual accountability for the successful completion of the work product.	• Many members contribute to discussions, decisionmaking and work. • Individuals focus on separate sections of the work product, but have a coordinator who ties the disparate parts together (they rely on the sum of each individual's work).	• Contributions are unequal although all members contribute something to discussions, decision making and work. • Coordination is sporadic so that the final work product is of uneven quality	•Contributions are unequal. • Certain members dominate discussions, decision making, and work. • Some members may not contribute at all. • Individuals work on separate sections of the work product, but have no coordinating effort to tie parts together.
Develop strategies for effective action	• Members use effective decision making processes to decide on action. • Group shares a clear set of norms and expectations for outcomes. • Group reaches consensus on decisions and produces detailed plans for action.	• Members use effective decision making processes to decide on action. • Group shares a clear set of norms and expectations for outcomes. • Group reaches consensus on decisions and produces detailed plans for action.	• Members usually use effective decision making processes to decide on action. • Most of the group shares norms and expectations for outcomes. • Group reaches consensus on most decisions and produces plans for action.	• Members sometimes use decision making processes to decide on action. Some of the members of the group do not share norms and expectations for outcomes. Group sometimes fails to reach consensus. Plans for action are informal and often arbitrarily assigned.	• Members seldom use decision making processes to decide on action. • Individuals often make decisions for the group. • The group does not share common norms and expectations for outcomes. • Group fails to reach consensus on most decisions. • Group does not produce plans for action.
Cultural Adaptation	• Members always recognize and adapt to differences in background and communication style.	• Members always recognize and adapt to differences in background and communication style.	• Members usually recognize and adapt to differences in background and communication style.	• Members may recognize, but do not adapt to differences in background and communication style	• Members do not recognize differences in background or communication style.

Table 3. ESLO#4 Teamwork Team Feedback.

Another assessment was given for the class to evaluate each other's works and the feedback and critique used to improve assignments prior to implementing exams to on-campus students:

Criteria	0	+1	+2	+3	+4	+5	Points
Multiple Choice: Quality	Not started or barely started. Lost interest in assignment.	Not completed but fair effort towards completion no references, illustrations, key, rationale or No team effort/interaction. No team critique No self team evaluation	Completed without key attached. Without references, rationale and no illustration. No team critique though attempt at self evaluation and fair team organization	Completed with resources available but not complete or consistent Organized. Still without illustrative questions. Attempt to team critique. Attempt at team evaluation and well organized team.	Completed with resources and short rationale given. Few illustrative question. Responds to other teams briefly as well as self team evaluation. A fair job with self team evaluation. A good functioning team.	Completed with well listed resourced questions. Rationale marked by page number Should have an attached key. Well placed illustration questions. Students respond to the other teams critique with good effort and give an honest self team evaluation. Disciplined team work.	
			.				
Multiple Choice: Grammar	No organization with incoherent questions with non sensible options. Full of grammatical errors obviously rushed. Sad attempt at illustrations that are unworkable.	No organization with rushed sloppy questions with non sensible options. Fair amount of grammatical or sentence (questions) structure errors. Illustrations are not represented of the problem. Fuzzy and blurry.	Attempt at organization Short questions with short simple questions. Few to moderate grammatical or sentence (questions) structure errors. Illustration fuzzy, blurry color or black and white.	Organized with short fair questions yet with short options. Few grammatical or sentence (questions) structure errors. Illustration fairly clear but not consistent black and white.	Fair organization with standard questioning tactics and fair challenging options. No grammatical or sentence (questions) structure errors. Illustrations clear and with black and white.	Well Organized. Question full and thoughtful. Options given are thoughtful and challenging options. No grammatical or sentence (questions) structure errors. Illustrations clear and with color.	
Clinical Simulation Quality	Blank background. No illustrations. Poor computer creations outcomes	Blank back ground. Attempt at illustration with attempted effort at computer	Attempt at background design. Able to do a fair job on illustration design.	Background is with reasonable design with adequate illustrations. Test content is verifiable and organized with	Background design is exceptionable with attempts to animated graphic illustrations. Test content	Background design is professional and stellar with animated illustrations graphics. Test content meets	

	for organization of fluency.	creation outcomes. Better organization of test content	Test content is fairly organized with some fluency.	fluent test content.	is solid in organization and allows for fluency for testing content.	NBRC testing standards by comparison and meets a well rounded test content.	
Clinical Simulation Functionality	Test taker unable to interface with the exam. Poor coordination with on campus student.	Test taker unable to interface with the exam even though coordination with student was attempted.	Test taker able to take simulation exam but pathways are not fluent. Good coordination made with student.	Test taker able to take simulation but pathways aren't without issues though fluent. Good coordination with the students.	Test taker able to take exams with flawless pathways but unable to interface with illustration. Close coordination with the student throughout the term	Test taker able to take exams with flawless pathways and illustrative interactions. Close coordination throughout the term with excellent test directions.	

Table 4. NBRC Exam Test Clarity and Functionality for test taking success Assignment.

ESLO #4: Teamwork project and tested measured for ESLO.

This assignment was targeted for both On-Line RCP 366, Clinical Simulation. This assignment also involved both on-line and On-Campus students. The assignments goal was to target a higher level of teamwork expected by employers within the health care industry offering an array of insights into this process. This experience creating a quality multiple choice NBRC style exam as well as a computerized simulation exam assignment supports the ELSO measurements of identifying, leadership in roles, successfully communicating, reconciling differences towards a common goal, sharing ideas, developing a final product that is usable and all the while keeping in mind cultural differences. Under all of these conditions and challenges, each team was able to produce an outcome of workable design. These team expectations were guided by the following instruction:

Oregon Institute of Technology
Respiratory Care Program
RCP 366 Clinical Simulation
Syllabus January 7, 2020

Course Description:
The practice and measurement of critical thinking in the context of computer branching logic simulations. Students in teams use organized sequential topical examinations to review and measure retention of respiratory care content. Passage of secure national review examination by the NBRC is offered as an option in this course. The alternative option to the NBRC credentialing exam in this course is to ask you to submit a video by the end of the term as guided by the attached Rubric for

video presentation. This can mimic a case study used from a text book, department policy and procedures or a scenario that you recently experienced. The Degree Completion Student will be communicating with on-campus students the experiences that they have currently experienced in the clinical arena.

Prerequisites: RCP 337

Instructor: Jeff Pardy MBA, RRT Phone: (541) 885-1541 email: jeff.pardy@oit.edu
Department Chair
Respiratory Care/Sleep Health
Program Director On-Line
Respiratory Care
Oregon Institute of Technology

Course Objectives:

This course provides an option of either project-based learning or challenging the NBRC's ACCS, NPS or RPFT exams. This is to meet the standards as a respiratory therapist that the NBRC regards you as competent of proficient in serving any one of these specialties. A second option that may be interest some students is creating a video production with an attached paper to justify the topic. This is a way to verify in detail the topic of interest and illustrate to others the importance and correct approaches to a clinical challenge. During this course the students are set in teams guided by a Rubric and will create computer clinical simulations as well as a written exam by completing the following objectives in this Syllabus. Students in this course are expected to communicate with on-campus students each week throughout the term and use their projects to test them at the end of the term. This is to fulfill the creation of simulations as well as testing their efficacy. The following summarizes the task of the student's responsibilities in this course. **All** students will be expected to work in assigned teams to complete the final simulation project. **All** students are expected to communicate on "Discussions" each week. **Option A** students may take the NBRC exams with communications points placed in "Discussions." **Option B** students are expected to complete a video production as guided by the Rubric and to assure benchmarks are met in "Assignments."

1. Identify the evidence-based objectives for the simulation.
2. Take the NBRC exam. You will need to submit a pass or an attempt by the end of this term. N Throughout the term, there will be communication based on progress of preparation for this exam. **You will be exempt from the video production with this option.**
3. Create a video production that portrays a patient's clinical case **unless you are taking the NBRC exam.**
4. Describe and the flow of this production through a short simple guided paper **unless you are taking the NBRC exam.**
    a. Describe the importance of this case through the introduction.
    b. Identify the process through the main body of your paper.
    c. Give the conclusion of this process and summarize the events of your topic that you created that describes the results as well as summarizes your video illustrations.
5. All Students will be placed in teams, we will create clinical simulations as well as a written TMC styled exam. The following methods will be used.

a. Write four titled computer simulation that are current (short) that can be fluently guided through using power point, prezi etc.

b. Write a 50 question multiple choice exam. This exam could be either based for the ACCS, RRT, RPFT, or NPS exam. Be sure to title this exam as the type that your team will be giving. Also, be sure to add references and rationale to each correct multiple choice answer.

c. Each student will be able to evaluate each member of the team as far as their professionalism and commitment to the project.

d. Submit your rough draft final to another team in the class for feedback to react on.

e. Submit your final project exams to the on-campus students to be taken and be prepared to grade them once done.

6. **All** students will have weekly post to your paired on-campus student about your hospital or facility experience of the week. The idea is to share your recent experience of a clinical issue that they we be able to ask questions about. The student will ask questions to be answered by you, the experienced respiratory therapist. At the end of the term you will submit and then grade your teams final project.

Philosophical emphasis:

This course is team project course. Teaching is based by both instructor and the students of this course. The primary focus of the student should be to fully engage in developing and implementing a clinical simulation and a written exam that meets the characteristics of working in a teambuilding environment**.** Each team will need to organize themselves to assure a working product results in the end. The student in this course should communicate effectively and professionally with each other in teams as well as with the on-campus students as if giving report to the next on-coming shift. The team will be able to choose between types of simulations and the written exam to create. These can include a computer simulation of a low fidelity simulation or a high-fidelity simulation. Full participating means to keep up with assignments and engaging with your on-campus student and your teammates. Again you are the mentor of on-campus students that should learn from your experiences. Engage in the production of a chosen simulation to be shared with a peer from your class. Realize that you are committed to your independent work as with the NBRC exam or Video Production option, and as a team player for the final project.

Textbook and Resources:

Students are expected to access web materials on line and to use on line search engines to construct knowledge for the other class participants, instructors and students. The Comprehensive Respiratory Therapist Exam Review of Respiratory Care Simulations will be the only **mandatory** book needed for this course. Some of the resources listed below can be helpful.

- Dana Oakes', Respiratory Care Simulations, 2016.
- Waxman, K.T., The Development of Evidence-Based Clinical Simulation Scenarios: Guidelines for Nurse Educators. January 2010, Vol. 49, No. 1
- http://people.ku.edu/~jomcderm/portfolio/courses/course_1/assign_5/assign_5_files/ebpsimscenarios_4.pdf
- McLaughlin, S. Simulation Scenario Design.
- http://hsc.unm.edu/som/programs/batcave/docs/SimSymposium/Scenario%20Design%20for%20Airway.pdf

Class Participation:

Health care involves working with people of diverse backgrounds in complex settings. In-class interaction and cooperation provides a venue for exercising the interpersonal communications necessary in the clinic. Comparing and contrasting one's thinking with that of one's classmates assist in further development of understanding. Degree completion students who have taken the project option will be passing to one another projects for peer reviews and exam taking from each other. For those who have chosen the NBRC option, there will be weekly communications in "Discussions" about your progress studying for this exam. It will be important for each student to keep a record of dates and times for communications to their peers. It would be even more effective "cc'ing" the instructor to ensure fluent accountability and fluency**. IF COMMUNICATIONS HAVE BEEN MADE TO ME THERE SHOULD BE NO REASON THE RECIPIENT OF THE INTENDED COMMUNICATION HAD NOT RECEIVED IT AS WELL FOR PROJECT STUDENTS.** As for the recipient, if you are not getting projects to you on time (as listed dates in the "Modules"), please send to the originator this concern, again "cc'ing" me so I can intervene as needed. **These dates, times, and "cc'ing" me will be the standard in part of this grading system. Keep your communications towards the course objectives only as the Student Handbook is enforced in this area of professionalism.** The idea is for you to communicate frequently with your team mambers to assure quality of the simulation project prior to being given to your cohort student at the end of the term. **For on-campus student communications, simply screen shot your communication thread into "Assignments" each week.** Lastly, the production of the simulation video will be guided by your rubric in this course and is in line with standards that well established and can be referenced in your paper. You will get a rubrics in the agenda in the "Agenda" the first week to also help you guide the needs for this course. Again, you will be EXEMPT from the Video Production if you choose to get a credential through the NBRC.

Student participation will include the following responsibilities on your part:

- **Week 1: 01/06/2020 to 1/12/2020.** Introductions: Introduce ourselves in "Discusssions."
  ALL Students: There will be a final projects done in teams based of a Rubric for Teamwork. All done through "Assignments."
  - ✓ Teams to organize a meeting and assign roles to complete the final project.
  - ✓ Title for multiple choice title due week 3.
  - ✓ Outline for **four** short simulation will be due week 3.
  - ✓ Rough draft progress due week 6.

- ✓ Feedback to be given back week 7. As a team, be sure to act on the feedback or constructive critique given. This will be turned into me as well for credit.
- ✓ Week 9 to do an internal team evaluation.
- ✓ Week 10 Give exams to on-campus students.
- ✓ Week 11 turn in grade results.

ALL Students: To teach assigned on-campus students. This includes actual experience that you have in your employment taking care of patients. At the end of the term, you will test them by applying your final project to each assigned student for the term. Weekly snap shots due in "Assignments."

- ✓ Weekly.

OPTIONS: You can choose to take either a NBRC exam an potentially waive future courses or create a video production of a case study, clinical scenario or formal policy and procedures. This will have a short 3 no more than 5 double spaced written page paper. This project will be based on a Rubric. If you take and pass the NBRC exam it will be a sufficient alternative if you choose and you will get **100% of the final video production grade upon passing the NBRC exam**. We **may** be able to waive a course or two after an audit of your current classes have been performed **but without promise**. Proof of credentialing needs to be shown that the test was taken between *1/06/2020 to 3/20/2020* and not before.

- **Week 2: 01/07/2020 to 1/19/2020. .** Be sure to communicate with your on-campus student a be prepared to answer questions that he or she may have. Be thoughtful in your responses as I will be looking for quality. *This is the minimal need. If your on campus student hasn't emailed questions about this stated experience then you have met the minimal need.*

NBRC students be sure to communicate this week about how you intend to approach this exam. Discuss your plan.

- ✓ NBRC formal exam results.

Video Production students declare your works and what it will reference to. You will be assigned a peer will later be assigned to you to review and give feedback. The paper will be a simple title with an introduction, main body and conclusion. There will be benchmarks to meet with rough drafts and peer reviews. Assigned peer will be given this week.

- ✓ Introduction rough draft due *week four*.
- ✓ *Week six* to exchange video progress and turn in rough draft main body of paper.
- ✓ Feedback to act on given back *week seven.* These are to be turned in for grading as well.
- ✓ *Week nine* to have conclusion rough draft submitted
- ✓ *Week 10* Final Paper due
- ✓ Final video due *week 11.*

Final Project teams. Be sure to communicate frequently with each other as this accounts for close to 50% on the grade. This exercise will also include evaluating each team member for professionalism, accountability, work ethic and quality. This will be done in the future of this course towards the end. Please be sure to submit an

outline next week in three. Be sure to discuss four short simulations mimicking the NBRC process when taking. Please also make a decision about the multiple choice title of RRT, NPS, ACCS or RPFT.

- **Week 3: 01/20/2020 to 1/26/2020.** Continue communicating with your on-campus student as well as submitting screen shots for full credit. Reminder of the minimum requirements with thoughtful responses.

  NBRC students students should have references and resources that they are using. Please share these to the class.

  Video Production students informally submit your approach to assure the Rubric needs are meeting the highest standards for a quality product.

  Final Project students submit the outline as well as the title used for your multiple choice exam.

- **Week 4: 01/27/2020 to 2/02/2020.** Continue communicating with your on-campus student and submitting into "Assignments." Hopefully, you have built a close rapport with them at this time.

  NBRC students you should have a scheduled date with your exam at this time. Please share this information and why you feel this is in pace with your strategy.

  Video production students please submit your Introduction Rough Draft for the paper support your topic that you have chosen.

  Final Project continue working together for your next goal of assembling your exams. Gradual multiple choice questions progression will assure quality. Reminder of rough draft by week six and at **LEAST** 25 questions, be it rough draft, should be completed.

- **Week 5: 02/03/20 to 02/09/2020.** Continue communicating with your on-campus student submitting your screen shots and meet the minimum needs for full credit.

  NBRC Students please submit the challenges that you might be running into while preparing for this exam.

  Video Production students please let me know any challenges that you may be coming across. This might include editing, accessibility or props. Please give your feedback here and be prepared to give your rough draft to your assigned peer from week 2 next week.

  Final project students continue your project and be prepared to swap your them in week six with your assigned peer review team.

Week 6: 02/10/2019 to 02/16/2019. Continue communicating with your on-campus student and submit at the end of the week.

NBRC students, continue studying and be aware that the term will soon. The quicker this is behind you the less stress moving forward. With that stated it is more important going in prepared and confident.

Video students give your assigned peer your progress. Be sure to cc' the instructor to assure accountability is being observed.

Project teams should send their projects to their assigned peer group and prepare for feedback to act on during week 7. Points will be assessed at the end of term in regards to team actions based on reasonable feedback.

- **Week 7: 02/17/2020 to 2/23/2020.** Continue communicating with your on-campus student as well as submitting your screen shot. This week there is additional request to add to your snap shot that you submit in "Assignments." Please indicate if you feel this experience was helpful to the student and more important is what you might of learned by reaching out to in progress students who have no or few with minimal patient care comparatively (as a CNA or ECG tech).

  NBRC continue working towards your goal for passing this exam. There is no submission this week.

  Video students should have their rough draft feedback this week to continue progress. Be sure to act on the constructive feedback that are within reason to assure a good quality product to be turned in.

  Project teams please send your feedback to the originators of the exams and be prepared to receive yours as well. Please be sure to submit this to the instructor as well for grading points. Move forward now with the final project as the next action will be to submit them to your assigned student in week 10. The final action will be for you to grade the exams that your students took in week 11.

- **Week 8: 02/24/2020 to 03/01/2020.** Continue communicating with your on-campus student and submitting your communication thread and in addition to this week please notify them of their exam that will coming week 10. One last question for your student is to ask them to reflect on the experience of communicating throughout the term with these shared clinical experiences.

  NBRC Student there will be no submissions this week. My hope is that have either taken the exam or that you are in the process of doing so. You will turn in your formal exam results in the last week of the term. If you pass you will have full credit that the video project students would potentially receive. If you do not pass this exam there will most likely be an "In Progress" grade that we can continue working on. If you do not take this exam at all it will be a failed grade by the end of the term.

  Video students there are no submissions this week needed, but please continue to edit and assure that the Rubric categories are being met with the best possible quality. The conclusion rough draft will be due week 9, next week.

  Project students this will be the week that you do an internal evaluation of each team member that will be anonymous though feedback will be given both positive and negatives. This will be due during week 10. Continue finalizing your multiple choice and computer simulations. Remember to pay attention to the critique given by your peer team. You may not agree with every critique which would be expected, but be sure to use your best judgement. They should only be used if they are constructive and reasonable.

- **Week 9: 03/02/2020 to 03/08/2020.** This will be the final communication with your on-campus student to be submitted and please ask the question of how they felt about this email process. **Please give your thoughts as well all for full credit. This is the final week for on-campus student communication of its kind.** With that stated, feel free to communicate with the on-campus student if you choose to.

NBRC students, please submit in "Discussions" if you have taken the exam, your outcomes and share your experience throughout this process. Many may have already taken their exam at this time, but there is still two weeks left. Better sooner than later; just be sure you are ready though. Nonetheless, if you have not taken the exam respond to others who have to get an idea of what to expect.
Video Production students please submit your Conclusion rough draft.
Final project students please turn in your internal team evaluations.

- **Week 10: 03/09/2020 to 03/15/2020.** **NBRC** students should be taking their test at this time if you haven't already. One week to go.
  Video Students please turn in your Final Paper that should be 3 to 5 pages long doubled space. This paper will not only be graded on rubric, context and content but will be graded according to sentence structure and mechanics expected of a bachelor degree student. Please indent and each paragraph should be 4 to 6 sentences long. Be sure to add any references used to build this video illustration. This final video will be turned in by next week, final week 11.
  Project students: Submit your exams to your assigned student to take. The window is short between 1250 to 1300 on Tuesday March 10th. If there is any date to pay attention to is this one due to the tight restraints. Make sure this process works well and DO NOT inadvertently send the answer key. Please submit this final project to the instructor as well. The instructor requires the answer key as well. The students will submit the computer simulation back to each team and the multiple choice will be sent back from the instructor via email for you to grade. The last submission will be next week with each individual student exam results being graded by you.

- **Week 11: 03/16/2020 to 03/20/2020**
  NBRC students submit your NBRC results in "Assignments."
  Video students submit your final video production guided by your rubric in "Assignments."
  Final Project students to turn in final on-campus grade results to instructor in "Assignments."

  Enjoy your Spring break.

Summary of Term

- NBRC **option** would enable the student to take either the NPS, RPFT or ACCS and will have a potential to waive future courses. A passing grade will give you 100% credit of the video production option that is also given. If you pass this Exam prior to the end of the term you will need to still engage in "Discussions" when asked. Your role at this point would be to motivate and encourage your other classmates who have yet to take it. **Video production students are exempt from this process.**
- Video Production **option** would entail a benchmarked progress throughout the term and will included a video production guided by a rubric along with a short simple paper that involves a title page, introduction, main body and a conclusion. The video will be graded based on the Rubric given at the beginning of week two along with an assigned peer that will later give you feedback. The paper will need to be double spaced with the an organized fluent flow of your

production that also is in line with what is expected for a bachelors level writing in sentence structure, grammar and mechanics. Keep an eye on benchmark expectations as mentioned in the weekly objectives above and put them in your calendar. **NBRC students receiving another credential from the NBRC are exempt from this process.**

- **All** students will be responsible to communicate weekly with on campus students. This will include a clear and precise recent or any profound experience you may have had as a respiratory therapist. It should be presented to the on-campus student in a way where they will ask three questions from this experience. The minimal needs for full credit would be to answer these questions in a thoughtful way. If the questions are not asked of you, you have met the minimal needs for this exercise. Recall the student handbook on professionalism when interacting with others in any OIT program. You will be turning in rough drafts and getting peer reviews set up in week 2. See below for one other interaction you will have at the end of the term with your assigned on-campus student.
- **All** students will be set up in teams week 1. Do not waste anytime contacting each other to roles assigned. This will be an exam that includes simulations and multiple choice that you will create. The clinical simulation will consist of four short sims that are in line currently with the NBRC. Another aspect of the final project is creating a 50 point written exam. This could be based on the RRT, RPFT, ACCS or NPS exams. Each question will require a reference, page number and rationale for the correct answer. You will have two sets: 1.) That will be given to the assigned on-campus student as mentioned above and 2.) The answer key that will be sent to the instructor only. There will be benchmarks along the way so be sure to refer to the weekly objectives above and mark them on your calendar. You will be responsible to get feedback from another team in this course.
- **Lastly,** please ask questions to avoid confusion along the way.

Grading Policy:

Grading Scale: 70-79% = C, 80-89% = B, >90% = A.

It Is Emphasized That Date, Time, and CC'ing the instructor with communications between cohort peer reviewers, originators, test givers and test takers **for fluent course function will be used as a standard for grading.** Just like in the hospital, "if it was not documented it was not done." If you are not getting what you need in a timely fashion as mentioned in "Discussions" then take action and make an effort to communicate with the relevant person(s). Please contact me as well with these potential concerns, but the instructor is

confident that each classmate will meet these guidelines. **Late work will not be accepted.**

Academic Policies:

Course Changes: The instructor reserves the right to alter the time of course discussions or assignments if it becomes obvious that a change is needed for better student learning.

Student Support and Safety:

Oregon Tech faculty and staff are committed to creating and maintaining a safe and equitable learning environment for the Oregon Tech community. Pursuant to U.S. Department of Education requirements, all Oregon Tech faculty and staff (other than designated confidential staff) must report any information they become aware of regarding gender-based bias, sexual harassment, sexual assault, sexual misconduct, relationship violence, or stalking involving a student to the University Title IX Coordinator.

In addition, Oregon law requires a mandatory report to the Oregon Department of Human Services of any physical or emotional abuse of a child or other protected person, including elders and people with disabilities, or when a child or other protected person is perceived to be in danger of physical or emotional abuse. If you are the victim of sexual or physical abuse and wish to speak with a confidential resource, please call the National Sexual Assault Hotline at 1-800-656-4673. You may report an incident using Oregon Tech's Anonymous Safe Campus Incident Report form on the Title IX site at http://www.oit.edu.titile-ix. and select the "Report and Incident" button. For more information about your options, please visit http://www.oit.edu/titile-ix.

Americans with Disabilities Act:

If you believe that you need an academic adjustment for any type of disability, please let me know. Students with visual or hearing impairment are advised to select seating in the classroom favoring optimal visual or auditory access to classroom activities. You may also speak with the Support Services office at Oregon Institute of Technology:
TEL: 541-885-1031 TTY: 541-885-1072 FAX: 541-885-1520Sy

Accreditation:
This program is accredited by the Northwest Commission on Colleges and Universities (NWCCU). Inquiries regarding accreditation should be directed to: The Northwest Commission on Colleges and Universities (NWCCU), 8060 165th Avenue, N.E. Suite 100, Redmond, WA. 98052-3981.

Please contact me with any questions you may have as you are creating the multiple choice and clinical simulation exams.

Figure 1. Teamwork Instructions to be measured.

V. ESLO #4 (Part 1). Teamwork Outcomes for On-Line Respiratory Therapy Multiple Choice:

This assignment was evaluated on-line in RCP 366; Clincal Simulation that included 11 weeks to create the both the multiple choice and clinical simulation exam assignments and to submit for testing. The measured items as described in Figure 1 using both exam success by the end goal of on-campus students able to take the exam and submit them for a grade and were converted once an overall grade was given after the assignment were completed by initially 16 total students. As faculty, we discussed an 80% cut score that would be the criteria for passing. The results are shown in the figure below:

ESLO 4: Institutional Teamwork Rubric Applied to Outcomes.

Student	NBRC style multiple choice outcomes converted to percentage.	NBRC style simulation outcomes.	Overall Outcome
Team 1 Josephine	Identifying: 4 Leadership: 3 Communication: 4 Reconcile: 3 Share: 4 Develop: 3 Cultural: 4	82%	Pass
Team 1 Nikole	Identifying: 4 Leadership: 4 Communication: 3 Reconcile: 3 Share: 4 Develop: 3 Cultural: 4	82%	Pass
Team 1 Richard	Identifying: 3 Leadership: 3 Communication: 4 Reconcile: 4 Share: 3 Develop: 4 Cultural: 4	89%	Pass
Team 1 Joshua	Identifying: 2 Leadership: 2 Communication: 3 Reconcile: 4 Share: 1 Develop: 3 Cultural: 4	68%	No Pass
Team 2 Sarah B.	Identifying: 3 Leadership: 4 Communication: 4 Reconcile: 3 Share: 4	89%	Pass

	Develop: 3 Cultural: 4		
Team 2 Amanda	Identifying: 3 Leadership: 4 Communication: 4 Reconcile: 4 Share: 4 Develop: 3 Cultural: 4	93%	Pass
Team 2 Pete	Identifying: 1 Leadership: 1 Communication: 2 Reconcile: 3 Share: 2 Develop: 2 Cultural: 4	54%	No Pass
Team 2 Ian	Identifying: 4 Leadership: 3 Communication: 3 Reconcile: 4 Share: 4 Develop: 4 Cultural: 4	93%	Pass
Team 3 Matt	Identifying: 3 Leadership: 3 Communication: 3 Reconcile: 4 Share: 4 Develop: 4 Cultural: 4	89%	Pass
Team 3 Kasey	Identifying: 4 Leadership: 4 Communication: 4 Reconcile: 3 Share: 4 Develop: 3 Cultural: 4	93%	Pass
Team 3 Joey	Identifying: 2 Leadership: 2 Communication: 1 Reconcile: 2 Share: 2 Develop: 3 Cultural: 4	57%	No Pass
Team 3 Maddy	Identifying: 4 Leadership: 4 Communication: 3 Reconcile: 4 Share: 3 Develop: 4 Cultural: 4	93%	Pass
Team 4 Sarah C.	Identifying: 4 Leadership: 3 Communication: 3 Reconcile: 2 Share: 3 Develop: 2 Cultural: 3	71%	No Pass

Team 4 Jill	Identifying: 0 Leadership: 0 Communication: 1 Reconcile: 0 Share: 0 Develop: 0 Cultural: 2	11%	No Pass
Team 4 Meghan	Identifying: 4 Leadership: 3 Communication: 2 Reconcile: 2 Share: 2 Develop: 3 Cultural: 3	68%	No Pass
Team 4 Matthew	Identifying: 4 Leadership: 2 Communication: 3 Reconcile: 3 Share: 4 Develop: 3 Cultural: 4	82%	Pass
Overall Results		71%	

Figure 2. Multiple Choice Exam. Please see appendix B-1.

Program Observation and Assessment for ESLO 4: Teamwork:

Strengths: The strength of this exercise was that teamwork is essential in healthcare. Throughout this course there were benchmarks that helped guide students along the way. Teams were able to establish leadership and roles quickly enough. Though the outcomes between teams and individuals differed, each team was able to provide a workable multiple choice exam. The other strength was that they were able to reflect on the critique and feedback from the other teams as well as an evaluation of each other within the unit. Lastly, each team was able to submit the exam to each individual on-campus student and then grade their outcomes.

Weaknesses: Not all students were as involved as others. In a few groups, there seemed to be one who was most enabled. Team dynamic can be difficult for each member to be equally productive and involved and it showed in this exercise. One group (Team 4), decided to do only 2/3rds of the work asked of them since one member did not participate. They did so without communication with the instructor. This was a significant weakness as it would not be acceptable in the industry to complete only a partial job. This team needed to either motivate this person to be interactive or pick up the extra work.

Actions: This was a challenging yet enjoyable exercise. Most team members were interactive and communicated effectively. The future actions should be to discuss how each team member can assure everyone is motivated and can bring different talents to the teams objectives. The instructor can do a

better job getting individual evaluations of team members more frequently throughout the term to aid in improved team dynamics.

Update: The update for ESLO's are implemented recently. As far as Program Outcomes, this was given in the last cycle to improve the approach of teamwork. I believe this change in assessment for this program has accomplished that.

Student Learning Summary: What was learned about team dynamics is that each student had strengths that they added to the team. Some did well at organizing the agenda, others did great at researching viable resources while others did good at creating the multiple choice exams. Other teams decided to charge each person with a 1/4th of the works needed for a successful outcome. The latter approach showed the most inconsistency as the quality varied and was quite noticeable.

VI. ESLO #4 (Part 2). Teamwork Outcomes for On-Line Respiratory Therapy Clinical Simulations:

This assignment was evaluated on-campus in RCP 366; Clinical Simulations that included ten weeks to create the Computer Clinical Simulation exams and submit to on-campus student to be tested. The measured items as described in Figure 1 using both Multiple Choice and Clinical Simulations were converted once an overall grade was given after the assignment were completed by 16 total students. As faculty, we discussed an 75% cut score that would be the criteria for passing. The results are shown in the figure below:

ESLO 4: Teamwork Outcomes.

Student	NBRC style multiple choice outcomes converted to percentage.	NBRC style simulation outcomes.	Overall Outcome
Team 1 Josephine	Identifying: 4 Leadership: 3 Communication: 4 Reconcile: 2 Share: 4 Develop: 2 Cultural: 4	82%	Pass
Team 1 Nikole	Identifying: 3 Leadership: 3 Communication: 4 Reconcile: 3 Share: 2 Develop: 3 Cultural: 4	79%	Pass
Team 1 Richard	Identifying: 3 Leadership: 4 Communication: 4 Reconcile: 4 Share: 3 Develop: 4 Cultural: 4	93%	Pass

Team 1 Joshua	Identifying: 2 Leadership: 2 Communication: 3 Reconcile: 3 Share: 2 Develop: 4 Cultural: 4	71%	No Pass
Team 2 Sarah B.	Identifying: 3 Leadership: 3 Communication: 4 Reconcile: 3 Share: 3 Develop: 3 Cultural: 4	82%	Pass
Team 2 Amanda	Identifying: 3 Leadership: 4 Communication: 3 Reconcile: 3 Share: 3 Develop: 3 Cultural: 4	82%	Pass
Team 2 Pete	Identifying: 2 Leadership: 1 Communication: 2 Reconcile: 3 Share: 3 Develop: 3 Cultural: 4	64%	No Pass
Team 2 Ian	Identifying: 4 Leadership: 4 Communication: 3 Reconcile: 4 Share: 3 Develop: 4 Cultural: 4	93%	Pass
Team 3 Matt	Identifying: 3 Leadership: 2 Communication: 3 Reconcile: 3 Share: 3 Develop: 4 Cultural: 4	79%	Pass
Team 3 Kasey	Identifying: 4 Leadership: 3 Communication: 3 Reconcile: 4 Share: 4 Develop: 4 Cultural: 4	93%	Pass
Team 3 Joey	Identifying: 2 Leadership: 2 Communication: 2 Reconcile: 2 Share: 3 Develop: 4 Cultural: 4	68%	No Pass

Team 3 Maddy	Identifying: 4 Leadership: 4 Communication: 3 Reconcile: 4 Share: 3 Develop: 3 Cultural: 4	89%	Pass
Team 4 Sarah C.	Identifying: 3 Leadership: 3 Communication: 3 Reconcile: 2 Share: 3 Develop: 3 Cultural: 3	71%	No Pass
Team 4 Jill	Identifying: 0 Leadership: 0 Communication: 0 Reconcile: 0 Share: 0 Develop: 0 Cultural: 0	0%	No Pass
Team 4 Meghan	Identifying: 4 Leadership: 3 Communication: 2 Reconcile: 2 Share: 2 Develop: 2 Cultural: 3	64%	No Pass
Team 4 Matthew	Identifying: 3 Leadership: 2 Communication: 3 Reconcile: 3 Share: 4 Develop: 3 Cultural: 3	75%	Pass
Overall Results			

Figure 3. Multiple Choice Exam. Please see appendix B-1.

Student	Teamwork Multichoice Exam Points Quality and Grammar Points converted percentage.	Clinical Simulation Quality and Functionality Points converted percentage.	Outcome
Team 1	80%	81%	Pass
	82%		Pass

Team 2		80%	
Team 3	83%	83%	Pass
Team 4	58%	52%	No Pass

Figure 1. Clinical Simulation. Please see appendix B-2.

Program Observation and Assessment for ESLO 4: Teamwork Clinical Simulations:

Strengths: This exercise was to create computer simulations similar to the NBRC exam. The teams did a great job making each simulation functional for on campus students. The on campus students were able to interface the computer simulation for successful submission. This was a higher level of creativity than the multiple choice exam as pathways and scenarios were fitted together as a puzzle to get to a certain destination. Whereas, the written multiple choice was an issue where people contributed a 1/4th of the work to each multiple choice and clinical simulation. This approach forced others out of their comfort zone to participate in this area.

Weaknesses: Not all students were involved in this process. There is a noted difference of those who are comfortable creating these simulations, while others weren't involved at all. This was not true for all teams though, as in some groups, all team players were expected to contribute 1/4th to each of the two project. Again, consistency was affected yet forced each member to be involved.

Actions: This experience was done for the first time in this course and should help future instructors to speak to the challenges that these teams had working together. Otherwise, no actions needed at this time.

Update: The update for ESLO's are implemented recently.

Student Learning Summary: Some students were comfortable in creating computer simulations while others refrained from them. Other teams had people out their comfort zone forcing communications between each other and these vulnerabilities. We have quite an age range within the respiratory on-line program as the industry has students who have began working their first year while others students enrolled have been in the profession for thirty years and everything in between. With that stated there is a stereotype that I am observing and it has to do with age. The younger generation was eager to work in this area while the older generation more hesitant. In the end each team was able to submit a functional computer simulation that on-campus students were able to take and be graded appropriately.

Appendix A-1

Student Learning Outcomes-Course Matrix 2019-2020 PSLO #1: . Knowledge of the respiratory care code of ethics and ethical and professional conduct. Courses that are shaded below indicate that the PSLO above is taught in the course, students demonstrate skills or knowledge in the PSLO, and students receive feedback on their performance on the SLO.

F = Foundation **E = Essential Practice** **C = Capstone**

Freshman	Sophomore	Junior	Senior
FALL	FALL	FALL	FALL
BIO 231 Anat & Phys I	BIO 336 Essentials of Pathology (F)	RCP 337 Pulmonary Pathology	RCP 441 Case Management Credentials I
CHE 101/104 Elementary Chemistry	CHE 360 Clinical Pharmacology	RCP 351 Mechanical Ventilation I	RCP 450 Clinical Care I
Math 111 or 243 College Algebra or Statistics	RCP 100 Respiratory Matriculation	RCP 388 Advanced Neonatology	
WRI 121 English Composition I	RCP 231 Pulmonary Physiology		
WINTER	WINTER	WINTER	WINTER
BIO 232 Anat & Phys II	BIO 105 Microbiology	RCP 352 Mechanical Ventilation II	RCP 442 Case Management Credentials II
PSY 201 or 202 or 203 Psychology Series	RCP 235 Arterial Blood Gas Interpretations	RCP 386 Critical Care I	RCP 451 Clinical Care II
HUM Humanities Elective	RCP 236 Cardiopulmonary Dynamics	RCP 389 International Neonatology	
SOC Social Science Elective	RCP 241 Gas Therapeutics		
WRI 122			

English Composition II			
SPRING	SPRING	SPRING	SPRING
BIO 233 Anat & Phys III	RCP 221 Introduction to Patient Assessment	RCP 326 Disaster Preparedness	RCP 452 Clinical Care III
BIO 200 Medical Terminology	RCP 223 Emergent Chest Radiograph Interpretation	RCP 335 Exercise Physiology and Education	
SPE 111 Public Speaking	RCP 252 Cardiopulmonary Pharmacology	RCP 353 Advanced Mechanical Ventilation III	
HUM Humanities Elective	RCP 336 Hyperinflation Therapies	RCP 387 Critical Care II	
SOC Social Science Elective	SPE 321 Group and Team Communications		
SUMMER	SUMMER	SUMMER	SUMMER
COM 205 Intercultural Communication		RCP 350 Introduction to Clinicals	
WRI 227 Technical Writing		RCP 366 Clinical Simulations	
MATH Elective		RCP 440 Case Management Credentials I	
HUM Humanities Elective			
SOC Social Science Elective			

Appendix A-2

Student Learning Outcomes-Course Matrix 2018-2019 PSLO #7: . The ability to function effectively in the health care setting as a member of the healthcare team. Courses that are shaded below indicate that the PSLO above is taught in the course, students demonstrate skills or knowledge in the PSLO, and students receive feedback on their performance on the SLO.

F = Foundation **E = Essential Practice** **C = Capstone**

Freshman	Sophomore	Junior	Senior
FALL	FALL	FALL	FALL
BIO 231 Anat & Phys I	BIO 336 Essentials of Pathology	RCP 337 Pulmonary Pathology	RCP 441 Case Management Credentials I
CHE 101/104 Elementary Chemistry	CHE 360 Clinical Pharmacology	RCP 351 Mechanical Ventilation I	RCP 450 Clinical Care I
Math 111 or 243 College Algebra or Statistics	RCP 100 Respiratory Matriculation	RCP 388 Advanced Neonatology	
WRI 121 English Composition I	RCP 231 Pulmonary Physiology		
WINTER	WINTER	WINTER	WINTER
BIO 232 Anat & Phys II	BIO 105 Microbiology	RCP 352 Mechanical Ventilation II	RCP 442 Case Management Credentials II
PSY 201 or 202 or 203 Psychology Series	RCP 235 Arterial Blood Gas Interpretations	RCP 386 Critical Care I	RCP 451 Clinical Care II
HUM Humanities Elective	RCP 236 Cardiopulmonary Dynamics	RCP 375 Pediatric Care	
SOC Social Science Elective	RCP 241 Gas Therapeutics		

WRI 122 English Composition II			
SPRING	**SPRING**	**SPRING**	**SPRING**
BIO 233 Anat & Phys III	**RCP 221 Introduction to Patient Assessment**	**RCP 326 Disaster Preparedness**	**RCP 452 Clinical Care III**
BIO 200 Medical Terminology	**RCP 223 Emergent Chest Radiograph Interpretation**	**RCP 335 Exercise Physiology and Education**	**RCP 442 Case Management Credentials II**
SPE 111 Public Speaking	**RCP 252 Cardiopulmonary Pharmacology**	**RCP 353 Advanced Mechanical Ventilation III**	
HUM Humanities Elective	**RCP 336 Hyperinflation Therapies**	**RCP 387 Critical Care II**	
SOC Social Science Elective	**SPE 321 Group and Team Communications**		
SUMMER	**SUMMER**	**SUMMER**	**SUMMER**
COM 205 Intercultural Communication		**RCP 350 Introduction to Clinicals**	
WRI 227 Technical Writing		**RCP 366 Clinical Simulations**	
MATH Elective		**RCP 440 RCP 442 Case Management Credentials II**	
HUM Humanities Elective			
SOC Social Science Elective			

Appendix A-3

Student Learning Outcomes-Course Matrix 2018-2019 ESLO #4: Inquiry and Analysis. Courses that are shaded below indicate that the ESLO above is taught in the course, students demonstrate skills or knowledge in the PSLO, and students receive feedback on their performance on the SLO.

F = Foundation **E = Essential Practice** **C = Capstone**

Freshman	Sophomore	Junior	Senior
FALL	FALL	FALL	FALL
BIO 231 Anat & Phys I	BIO 336 Essentials of Pathology	RCP 337 Pulmonary Pathology	RCP 441 Case Management Credentials I
CHE 101/104 Elementary Chemistry	CHE 360 Clinical Pharmacology	RCP 351 Mechanical Ventilation I	RCP 450 Clinical Care I
Math 111 or 243 College Algebra or Statistics	RCP 100 Respiratory Matriculation	RCP 388 Advanced Neonatology	
WRI 121 English Composition I	RCP 231 Pulmonary Physiology		
WINTER	WINTER	WINTER	WINTER
BIO 232 Anat & Phys II	BIO 105 Microbiology	RCP 352 Mechanical Ventilation II	RCP 442 Case Management Credentials II
PSY 201 or 202 or 203 Psychology Series	RCP 235 Arterial Blood Gas Interpretations	RCP 386 Critical Care I	RCP 451 Clinical Care II
HUM Humanities Elective	RCP 236 Cardiopulmonary Dynamics	RCP 389 International Neonatology	
SOC Social Science Elective	RCP 241 Gas Therapeutics		
WRI 122	RCP 366		

English Composition II	Clinical Simulation On-Line		
SPRING	SPRING	SPRING	SPRING
BIO 233 Anat & Phys III	RCP 221 Introduction to Patient Assessment	RCP 326 Disaster Preparedness	RCP 452 Clinical Care III
BIO 200 Medical Terminology	RCP 223 Emergent Chest Radiograph Interpretation	RCP 335 Exercise Physiology and Education	
SPE 111 Public Speaking	RCP 252 Cardiopulmonary Pharmacology	RCP 353 Advanced Mechanical Ventilation III	
HUM Humanities Elective	RCP 336 Hyperinflation Therapies	RCP 387 Critical Care II	
SOC Social Science Elective	SPE 321 Group and Team Communications		
SUMMER	SUMMER	SUMMER	SUMMER
COM 205 Intercultural Communication		RCP 350 Introduction to Clinicals	
WRI 227 Technical Writing		RCP 366 Clinical Simulations	
MATH Elective		RCP 440 RCP 442 Case Management Credentials II	
HUM Humanities Elective			
SOC Social Science Elective			

Appendix B-1

On-Line Multiple Choice Outcomes to ESLO assignment. Video's to be archived.

Appendix B-2

On-Line Clinical Simulations to ESLO assignment. Video's to be archived.