2018-19 Respiratory Care
Annual Institutional Assessment

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

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

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. Our students are recognized for high pass rates, employer satisfaction and student satisfaction with their educational outcomes employed as a job entry level employee after graduation. Out 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
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Advisory Board: The Respiratory Care Program Advisory Board met with the Medical Director, Dr. Michael Blumhardt and Advisory Board Chair, Kelly Angel, to assure that our program and student needs were 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. This committee has met twice this year. Once in November of 2018 and again in March, 2019. Changes that were overseen by this committee in March of 2019 was to assure curriculum matches current practices as seen with other high performing colleges. This included an analysis of other bachelor programs that have done well by CoARC standards. 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

"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

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

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 icon and in the sotnt sh in aerotow

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		
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 2018-19 Assessment Activities: The respiratory care faculty met in Fall 2018, to discuss assessment for the academic year 2019- 20 for . We have identified on-line course RCP 387, Critical Care II 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 #3: Ethical Reasoning Assignment Measured.

The Institutional Rubric is for Ethical Reasoning and is used to measure this assignment. Students are tasked with creating a video that contrast ethical differences using bedside manner for patient approaches for this ESLO assessment. This video assignment correlates with the ESLO #3 Institutional Rubric defined as, "Ethical reasoning is the process of recognizing which decisions require ethical judgements, determining potential reasonable courses of action, finding support for potential courses of action, and then selecting the course of action best supported." These video's also have an embedded written documentation that addresses each of the criterias.

The Institutional ESLO #3 Rubric that evaluates the Full Code Emergency Medicine Simulation meets each of these performance criteria's:

PERFORMANCE CRITERIA	High Proficiency (4) The work meets listed requirements for this criterion; little to no development needed.	Proficiency (3) The work meets most requirements; minor development would improve the work.	Some Proficiency (2) The work needs moderate development in multiple requirements.	Limited Proficiency (1) The work does not meet this criterion: it needs substantial development in most requirements.
Theory: Student demonstrates knowledge of different ethical theories and codes.	The student demonstrates a developed knowledge of different ethical theories and codes, and provides rationale for their preferred theory or code.	The student demonstrates a developed knowledge of different ethical theories and codes.	The student demonstrates a basic knowledge of different ethical theories or a code. Student understands the difference between ethics and law.	The student exhibits no knowledge of different ethical theories and codes. The student may confuse legal and moral codes.
Recognition: Student can recognize decisions requiring ethical judgments.	The student is able to successfully recognize decisions requiring ethical judgments without prompting, and can clearly explain to others why they require ethical reasoning.	The student is able to successfully recognize decisions requiring ethical judgments without prompting.	The student is able to recognize decisions requiring ethical judgments with prompting.	The student is unable to recognize decisions requiring ethical judgments.
Logic: Student demonstrates knowledge of the logic of ethical reasoning.	The student can formulate and test plausible moral principles* and apply them to a case to derive a course of action.	The student can formulate basic moral principles* and apply them to a case to derive a course of action.	The student can take an existing moral principle* (possibly from a code of ethics) and apply it to a case to derive a course of action.	The student exhibits no knowledge of the logic of ethical reasoning, and/or applies it improperly/inadequately.

	refuting other possible decisions.	their reasoning to similar situations.		

Table 3. ESLO#3 Institutional Rubric Ethical Reasoning.

The second half of the assignment also included a rubric to assure video production, creativity and effort; a sense of work ethic toward the project itself. The course assignment rubric for video production was measured by the following standard criteria:

Criteria	0	+1	+2	+3	+4	+5	Points
Video Quality: including role playing, edits and audio.	Missing or feeble attempt.	Video all the way through with obvious mistakes. No role playing. Audio issues but not clear.	Video with subtle mistakes or few errors. An attempt at role playing but is weak. Clear audio mostly.	Video with obvious editing attempts. Audio clear. Role playing attempted.	Video edited well. Audio very clear. Role playing is convincing. A beginning of creativity or realistic.	Video well edited. Audio very clear. Role playing is passionate. The video is creative and realistic to the audience. Should include an abstraculAudio	

scene contrast of **ethical reasoning**	skills or communications at all or only mentioned.	level on acknowledged ethical differences.	reasoning through communications examples.	differences with both communication and skills.	ethical differences and reasoning as well as favoring appropriate judgement with communications and skills.	that includes theory, recognition, reasoning, logic and judgement. The student is able to display this through scene I and II effectively through communication and evaluative skills.	
The student **equipment knowledge and dexterity.**	Does not mention equipment use, may only have it the background.	Identifies equipment used and the purpose for patient use.	Interacts with equipment identified. Describes purpose in full.	Interacts with equipment identified and changes parameters. Describes purpose in full.	Interacts with equipment explaining its functions. Able to set up and make changes to equipment.	Shows confidences in setting up equipment. Explaining the details of each modality of all equipment used. Able to make changes and explain the reasoning. Very precise on each approach defined along the way.	
Student **interaction** with the audience.	None at all or avoids questions by students.	Presentation somewhat organized with group involvement.	Presentation well organized with group participation. Made clear step-by-step process.	Presentation organized with equal group participation. Detailing actions. Awaits audience questions. a	Presentation organized with equal group participation. Detailing actions. Addresses ses		

					standards and is well written.	fashion. Paper meets standards and is well written.	

Table 4. Video Production Assignment.

ESLO #3: Ethical Reasoning Video Quality Measured.

This assignment was targeted for both On-Line RCP 389, International Neonatology. This same assignment was used for on campus students to be measured in RCP 387, Critical Care II. These assignments did not differ as to assure consistency among students in both similar programs, both on-line and On-Campus The assignments goal was to target a higher level of understanding Ethical Reasoning and being able to present to their peers their understanding of ethical reasoning and allowed for questions and answers at the end of each student's presentations. This experience creating this video assignment supports the ELSO measurements of theoryis6.4 (e)-3 (( )]Tc -0i)2.2 (g)2.03 Tw -2.739 -1.1

captured in the introduction as well as providing the rationale through resource findings and video

c. Please express your experience or the impact you believe this may have had on you and others who assisted you in this video production on how you were able to express the logic of this exercise.

d. Please describe how your judgment for ethical reasoning in this exercise came about. Include any past work, academia experience or professional relationships that have helped to form a better judgement about ethical reasoning.

e. The conclusion will also be submitted to the video for the viewer to read as well as the presenter speaking directly into the camera and verbalizing its contents. This should include references used for this exercise. Please use at least two references on ethical reasoning to support your claims. **A Rubric for ethical reasoning will be sent and used for grading this assignment.**

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Video Instructions

I.   **Video clarity:**
   a. Obvious attempts to edit for the best scene possible created is welcomed and will be graded accordingly.
   b. Please assure good visuals that include close ups, like for the use of equipment and patient evaluations.
   c. Please assure video that also captures the whole scene during general verbalization or communication.
   d. Please add detail to your room scene and patient environment for a realistic approach to production.

II.   **Audio Clarity:**
   a. Obvious attempts to editing the audio for the best sound possible is appreciated as well and will be graded accordingly. Please assure that it is loud enough and with clarity. Avoid any white noise or barriers to sound gathering for this production.
   b. Avoid back ground noises unless using equipment or alarms giving a realistic approach to your scene(s). The idea is to make it sound as if we are truly in the hospital environment.
   c. Role play, practice and choreograph the scene to avoid words like "um" or "like" ETC. The end product should be fluent from beginning to end.

III.   **Satisfactory Production:**
   a. Please speak directly to the camera/audience for your introduction as well as your conclusion mentioning references along the way. Be sure you use 1 to 2 minute pause for the written paper that can be read by the viewer that is embedded in your production at the end of the introduction and conclusion sections.
   b. Please wear appropriate attire (scrubs or professional clinical) to produce this video. Although, comparison video's may also be used

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Theory: 4

Recognition: 4 100

Logic: 4

Judgement: 4

Actions: Continue to improve the video production for ESLO assessment as well as the assignment(s) tagged to them. May consider applying a given scenario to reads through; or a script to apply themselves to. This would give the evaluator a point of reference that are equally agreed upon.

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 ethical reasoning. I believe this change in assessment for this program has accomplished that.

Student Learning Summary: Each student not only had to write a document that addresses each ethical reasoning criteria to be embedded into the video for evaluators to view, but performing the video to support their documentation gave the student a sense of commitment by playing out the parts of an ethical scenario that they each created for themselves based on experiences.

VI. ESLO #3. Ethical Reasoning Outcomes for On-

Heylea	Theory: 3 Recognition: 4 **90** Logic: 3 Judgement: 4	86	Pass
Ashley	Theory: 4 Recognition: 3 **88** Logic: 4 Judgement: 4	84	Pass
Bailey	Theory: 4 Recognition: 4 **92** Logic: 4 Judgement: 4	92	
Alex	Theory: 4 Recognition: 4 **98** Logic: 4 Judgement: 4	96	

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 ethical reasoning. I believe this change in assessment for this program has accomplished that.

Student Learning Summary: Each student not only had to write a document that addresses each ethical reasoning criteria to be embedded into the video for evaluators to view, but performing the video to support their documentation gave the student a sense of commitment by playing out the parts of an ethical scenario that they each created for themselves based on experiences. Another note made was that the video production rubric coincided in respects to the effort that was put in each one. My conclusion that there is also a correlation between ethical reasoning and work ethic with accountability.

			Credentials II	
PSY 201 or 202 or 203 Psychology Series	RCP 235 Arterial Blood Gas Interpretations	RCP 386 Critical Care I		

		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 #3: . . 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	BIO 105	RCP 352	RCP 442

Anat & Phys II	Microbiology	Mechanical Ventilation II	Case Management Credentials II
PSY 201 or 202 or 203 Psychology Series	RCP 235 Arterial Blood		

WRI 227

Anat & Phys II	Microbiology	Mechanical Ventilation II	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
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