

May 10, 2017

MEMORANDUM

TO: State Board of Regents

FROM: David L. Buhler

SUBJECT: Utah Valley University – Associate of Applied Science in Respiratory Therapy and Bachelor of Science in Respiratory Therapy

Issue

Utah Valley University (UVU) requests approval to offer an Associate of Applied Science in Respiratory Therapy and a Bachelor of Science in Respiratory Therapy effective Spring Semester, 2018. The proposed programs were approved by the institutional Board of Trustees February 16, 2017.

Background

For a number of years Weber State University has offered a Bachelor of Science (BS) in Respiratory Therapy (RT) in Utah County through a satellite program taught at Utah Valley Hospital. Weber State University (WSU) is seeking another opportunity to open a satellite BS program in the Salt Lake City area. The Salt Lake program would represent a third satellite RT offering for WSU. Accreditation requirements allow an institution to operate only two satellite programs. Because of this, WSU has stopped enrolling new students at its Utah Valley location. To replace the WSU offering, UVU is proposing an RT program. The UVU program will maintain the curriculum and the clinical instructors at Utah Valley Hospital, and it will add an associate of applied science degree option in order to provide a stackable credential that will seamlessly transition into the UVU BS program.

Utah Valley University will seek accreditation for the BS program through the Commission on Accreditation for Respiratory Care (CoARC). Accreditation by CoARC is required to qualify students to take the National Board of Respiratory Care exams. Successful completion of these exams leads to certification as a Certified Registered Therapist (CRT) and as a Registered Respiratory Therapist (RRT), the RRT representing a higher standard of professional knowledge and skills. At a minimum, a person must earn the CRT credential in order to be licensed and to practice as a respiratory therapist. Employment opportunities with health care providers range from home health and hospice to neonatal, pediatric, adult intensive care, and other clinical settings.

Acceptance into the AAS program will be competitive and will require 29 credit hours of prerequisite courses. Those admitted to the program will complete general education requirements and will also take lower division RT courses to complete the AAS degree, at which point they may seamlessly transition into the BS program.

A labor market review of the respiratory therapists occupational category (SOC Code 29-1126) revealed the following information:

Area	Average Annual Median Wage- Utah Department of Workforce Services Data	Estimated Total Annual Job Openings- Utah Department of Workforce Services Data	Job Postings March, 2016 through February, 2017- Burning Glass Labor Insight Tool
Provo-Orem Metro	\$59,670	10	23
Utah	\$57,770	50	233

Utah Valley University anticipates graduating 20 students per year from its program, a number that seems consistent with market demand within its service area.

Policy Issues

The proposed program has been developed through established institutional procedures and Board of Regents policy. Chief academic officers as well as faculty in related departments from the Utah System of Higher Education institutions have reviewed the proposal and have provided input.

Commissioner’s Recommendation

The Commissioner recommends the Board of Regents approve the Associate of Applied Science in Respiratory Therapy and Bachelor of Science in Respiratory Therapy.

David L. Buhler
 Commissioner of Higher Education

DLB/BKC
 Attachment

Utah System of Higher Education Program Description - Full Template

Section I: The Request

Utah Valley University requests approval to offer the following Associate's and Baccalaureate degree(s): AAS/BS in Respiratory Therapy effective Spring 2018. This program was approved by the institutional Board of Trustees on 02/16/2017.

Section II: Program Proposal

Program Description

Present a complete, formal program description.

A Bachelor of Science in Respiratory Therapy consists of comprehensive classroom and clinical curricula that prepare students for the credentialing exam offered by the National Board of Respiratory Care (NBRC). Successful completion of the curriculum and the credentialing exam certifies students as a Certified Registered Therapist (CRT) and/or as a Registered Respiratory Therapist (RRT). These certifications enable program graduates to apply for licensure in Utah. Employment opportunities with health care providers range from home health and hospice to neonatal, pediatric, adult intensive care units and other areas of specialty offered by health care providers.

The Respiratory Therapy Program is currently offered through Weber State University's satellite program at Utah Valley Hospital. The proposal is to transfer sponsorship of the respiratory therapy degree from Weber State University to Utah Valley University while maintaining the curriculum and the clinical instructors at Utah Valley Hospital intact. This program will be administered under UVU's College of Health and Public Services.

Acceptance into the associate of applied science (AAS) program will be a competitive application process. Twenty-nine credit hours of prerequisite courses must be completed before applying to the program. When the successful applicants complete 38 credit hours of the AAS program, they will be eligible to graduate with an AAS and will seamlessly transition to the Bachelor of Science (BS) in Respiratory Therapy. The BS contains an additional 35 required course credits and nine elective credits.

Consistency with Institutional Mission

Explain how the program is consistent with the institution's Regents-approved mission, roles, and goals. Institutional mission and roles may be found at higheredutah.org/policies/policy312/.

This program meets UVU's mission by providing an opportunity for students to achieve an AAS and BS, thereby preparing them to sit for the credentialing exams offered by the NBRC. A degree in respiratory therapy provides the opportunity for UVU students to prepare for and enter into a needed allied health care field other than nursing without going to for-profit colleges or traveling to Weber State University to enroll in their program. A degree in respiratory therapy also meets specific and critical needs for qualified respiratory therapists in UVU's service area and in the state by providing licensed entry level respiratory therapists who may be hired by health care providers. It also provides UVU the opportunity to explore integrating simulation laboratories for nursing and respiratory care students.

Section III: Needs Assessment

Program Rationale

Describe the institutional procedures used to arrive at a decision to offer the program. Briefly indicate why such a program should be initiated. State how the institution and the USHE benefit by offering the proposed program.

Weber State University (WSU) has offered respiratory therapy in Utah County through a satellite program taught at Utah Valley Hospital for approximately 20 years. Due to changes in WSU's Respiratory Therapy Department's strategic plan; the WSU satellite program in Utah County will be discontinued. The last cohort was admitted May, 2016.

The purpose of UVU accepting sponsorship of the respiratory therapy degree is to continue providing a vital work force component for health care providers in Utah and Wasatch Counties and to provide UVU students the option to enroll in another allied health field other than nursing or dental hygiene. Presently UVU students desiring to pursue respiratory therapy have to transfer to WSU or to private for-profit organizations in order to receive training.

The benefits to UVU are multifaceted. First, offering a degree in respiratory therapy expands the health options for UVU students. Secondly, it allows UVU to broaden its corroboration with Utah Valley Hospital and other health care providers within its service area. Third, by expanding UVU's offerings in health care fields it allows UVU to be more nimble in responding to the specific needs of health care providers in UVU's service area. With the expansion of Utah Valley Hospital, American Fork Hospital, the addition of the new IASIS hospital in Lehi, and the projection of another new hospital to be built in Spanish Fork, UVU can monitor and respond more readily to service area needs for respiratory therapists. Lastly, it relieves WSU from its responsibility of trying to monitor and meet allied health care needs in UVU's service area and allows its respiratory care department to focus energy and resources elsewhere.

Labor Market Demand

Provide local, state, and/or national labor market data that speak to the need for this program. Occupational demand, wage, and number of annual openings information may be found at sources such as Utah DWS Occupation Information Data Viewer (jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do) and the Occupation Outlook Handbook (www.bls.gov/oco).

Economic overview and program gap analysis data demonstrates projected job change increases in health care and social services by approximately 8,000 jobs from 2014 to 2024. This projection represents a 37% increase in the industry and is the second highest projection second only to construction. At this time the specific needs of Utah County in the field of respiratory care are only being addressed by the satellite program offered by WSU at Utah Valley Hospital which is slated to be discontinued and which graduates only 10 to 12 students per cohort. By assuming sponsorship of the WSU program, UVU can respond more readily and broadly to the health care industry needs in this service area by adjusting cohort sizes according to local market demand.

Burning Glass data provided by the UVU institutional research office for the time period of July 2015 until June 2016 depicts the need for 215 registered respiratory therapists and respiratory therapy technicians in the State of Utah, with 28 therapists needed in Provo and Orem alone. This data does not include needs in Wasatch, Summit, Juab, Sanpete, and Carbon counties.

A search of needs for respiratory therapist by title in the State of Utah totaled 238.

Data from the Economic Development and Employer Planning System (EDEPS), which articulates higher education program data with Bureau of Labor Statistics (BLS) metrics for respiratory therapist and respiratory therapist technicians in Utah, reports that higher education entities in the State of Utah which offer AAS and/or BS degrees in respiratory therapy include WSU, Dixie State University, Stevens-Henager College, and Independence University. The data that analyzes higher education supply and labor market demands shows these four institutions produce 271 program completers, which is more than the labor demands indicated by the Burning Glass data. However, the 179 AAS graduates and 79 BS graduates reported by Independence University in 2014 is the total number of graduates from their on-line program, which includes graduates from states other than Utah.

Factoring only graduates from exclusively Utah based colleges and universities, Utah produced 88 graduates in 2014 of which only 78 graduated from USHE institutions. Stevens-Henager College produced 10 graduates. Independence University and Stevens-Henager's BS graduates have a credentialing pass rate of 32%, whereas WSU's BS graduates have a pass rate of 95%. Job placement rates for successful graduates of all Utah based programs averages 95.3%

Student Demand

Provide evidence of student interest and demand that supports potential program enrollment. Use Appendix D to project five years' enrollments and graduates. Note: If the proposed program is an expansion of an existing program, present several years enrollment trends by headcount and/or by student credit hours that justify expansion.

There are several measures that can be used to estimate the number of students who are and would be eligible and potentially interested in applying to a new respiratory therapy program offered at UVU. These include the following:

1. Weber State University's satellite program taught at Utah Valley Hospital has had between 16 and 28 applicants for each cohort over the past five years even though there is essentially no advertising for the program in Utah County. Most of the students who apply to the Utah Valley Hospital Respiratory Care Program are from Utah County. The satellite program per CoARC requirements is accredited to accept twelve students per cohort.
2. Utah Valley University's nursing program has the same prerequisites as respiratory therapy. Students who apply to nursing may also be interested in applying to the respiratory therapy program if it were offered at UVU.
3. Students enrolled in courses that are prerequisites for respiratory therapy could be potential candidates for the respiratory therapy program. Some 690 students were enrolled in these courses during 2016.

Similar Programs

Are similar programs offered elsewhere in the USHE, the state, or Intermountain Region? If yes, identify the existing program(s) and cite justifications for why the Regents should approve another program of this type. How does the proposed program differ from or compliment similar program(s)?

As stated above, WSU already offers a satellite program at Utah Valley Hospital and has in the past provided the workforce needed in Utah and Wasatch Counties. This request is to transfer sponsorship of WSU's satellite program to UVU. Salt Lake Community College is proposing a new AAS degree program in respiratory therapy.

Initially the new Respiratory Therapy Program at UVU will not significantly increase the number of students until the new program has passed through three years of provisional accreditation program outcomes with the Commission for Accreditation for Respiratory Care (CoARC). Once continuing accreditation is approved, CoARC will allow UVU to increase the number of students in each cohort. The number per cohort can then be determined by the needs of health care providers in UVU's service area and in the state as coordinated with WSU, Dixie State University, and SLCC.

Collaboration with and Impact on Other USHE Institutions

Indicate if the program will be delivered outside of designated service area; provide justification. Service areas are defined in higheredutah.org/policies/policyr315/. Assess the impact the new program will have on other USHE institutions. Describe any discussions with other institutions pertaining to this program. Include any collaborative efforts that may have been proposed.

Utah Valley University has been collaborating with WSU for more than a year concerning the transfer of sponsorship of its satellite respiratory therapy program. The curriculum and adjunct instructors who are currently teaching in the WSU program will remain intact under UVU's sponsorship and have been included in the new faculty proposal.

Weber State University began the last cohort at Utah Valley Hospital in May, 2016. This cohort will finish the BS program in August, 2017. Local health care providers in UVU's service area are anxious to have UVU begin its first cohort as soon as possible to meet the rising demand for registered respiratory therapists in Utah and Wasatch Counties. It is UVU's plan to collaborate closely with WSU and with Dixie State University to determine the size of future cohorts to meet both local and statewide demands for qualified registered respiratory therapist.

There is no anticipation of negative impacts or effects on any of the USHE institutions that are offering AAS or BS degrees in respiratory therapy. Utah Valley University will not be drawing from common student populations, and it is anticipated that UVU graduates will have sufficient employment opportunities within the UVU service area.

External Review and Accreditation

Indicate whether external consultants or, for a career and technical education program, program advisory committee were involved in the development of the proposed program. List the members of the external consultants or advisory committee and briefly describe their activities. If the program will seek special professional accreditation, project anticipated costs and a date for accreditation review.

An advisory committee has been organized in accordance with the guidelines CoARC. Individuals comprising this committee consist of two program directors of current respiratory therapy programs, two physicians, four clinical managers of respiratory care departments from local hospitals, an associate dean from UVU's College of Science and Health, and one professor from the Department of Biology.

UVU is in the process of applying for approval from CoARC for provisional accreditation to begin an entry-level program of respiratory care. Once provisional status is granted, continuing accreditation is awarded based on the pass rates of the first three graduating cohorts from the new program.

Section IV: Program Details

Graduation Standards and Number of Credits

Provide graduation standards. Provide justification if number of credit or clock hours exceeds credit limit for this program type described in R401-3.11, which can be found at higheredutah.org/policies/R401.

Graduation requirements meet all the general education requirements of the university. The program core course requirements mirror the very successful respiratory therapy curriculum at WSU, which meets the national accreditation standards of CoARC. The Graduation Standards are as follows:

1. Completion of a minimum of 123 semester credits, including at least 40 hours of upper-division credits.

a. GE requirements of UVU	=	29 credits
b. Prerequisite courses for admission to the program	=	17 credits
c. Required lower division credits for Respiratory Therapy	=	36 credits
d. Required upper division credits for Respiratory Therapy	=	34 credits
e. Upper Division Electives	=	<u>7 credits</u>
f. Total Credits	=	123

2. Overall grade point average of 2.0 (C) or above. (Departments may require a higher GPA.)

3. Completion of GE and specified departmental requirements.

4. Residency hours--minimum of 30 credit hours through course attendance at UVU.

5. Successful completion of at least one Global/Intercultural course. (University Standard)

The three credits over the 120 hours for a BS degree is a combination of the GE and the number of required lower division credits for the degree. The only electives are upper division and six credits are needed to meet the requirement of a minimum of 40 upper division credits. (See the curriculum and degree map below)

Admission Requirements

List admission requirements specific to the proposed program.

Admission requirements for the proposed program are patterned after the requirements for admission into the WSU program. Applications may be submitted prior to the completion of the prerequisite courses listed below, but students need to have completed all of these courses with a minimum of a C grade or higher to be accepted into the respiratory therapy BS.

English 1010 and 2020

Math 1030 or 1040 or 1050

General Psychology 1010

Chemistry 1110 Elementary Chemistry for Health Sciences or higher

Zoology 2320, Anatomy with co-requisite laboratory

Zoology 2420, Physiology with the co-requisite laboratory

Microbiology 2060 or 3450 with the appropriate co-requisite laboratory.

Selection for admission will be through a competitive application process. Additional consideration will be given to applicants for the following accomplishments or situations.

1. The more prerequisites completed prior to applying.
2. Completion of an associate or bachelor degree.
3. A previously qualified applicant who was unsuccessful in a previous application cycle.

Curriculum and Degree Map

Use the tables in Appendix A to provide a list of courses and Appendix B to provide a program Degree Map, also referred to as a graduation plan.

Section V: Institution, Faculty, and Staff Support

Institutional Readiness

How do existing administrative structures support the proposed program? Identify new organizational structures that may be needed to deliver the program. Will the proposed program impact the delivery of undergraduate and/or lower-division education? If yes, how?

Respiratory therapy will align under the newly created Department of Allied Health within the College of Health and Public Services. Administrative and day-to-day budgetary operation will be handled through the department chair and the department's administrative assistant.

The proposed program will have no impact on the undergraduate, lower division courses in the University or in the College of Science and Health. Students for the program will be recruited from the pool of students already enrolled in prerequisite courses for nursing, dental hygiene, and pre-health professions.

Faculty

Describe faculty development activities that will support this program. Will existing faculty/instructors, including teaching/graduate assistants, be sufficient to instruct the program or will additional faculty be recruited? If needed, provide plans and resources to secure qualified faculty. Use Appendix C to provide detail on faculty profiles and new hires.

To meet CoARC accreditation criteria two new full-time faculty will be hired, a program director and a Director of Clinical Education.

The program director will be responsible for fiscal planning, planning and development, continuous review and analysis of outcomes data, generation of the annual accreditation reports, and the overall effectiveness of the program. This person will teach some courses in the program, and may hold other leadership roles within the university and pursue scholarly activities. The program director's workload should balance other activities with administrative responsibilities in the proposed program.

The director of clinical education will be responsible for all aspects of the clinical experiences of students enrolled in the program including organization, administration, continuous review and analysis of outcome data, development, and planning of locations for evolving practice skills and effectiveness of the clinical experience.

Part-time adjunct faculty will consist of the professionals in residence at Utah Valley Hospital who have been teaching for Weber's satellite program.

Staff

Describe the staff development activities that will support this program. Will existing staff such as administrative, secretarial/clerical, laboratory aides, advisors, be sufficient to support the program or will additional staff need to be hired? Provide plans and resources to secure qualified staff, as needed.

Existing staff in the newly created Department of Allied Health will provide support for the program.

There are two advisors for pre-nursing and one pre-dental hygiene advisor who are already advising the pool of students that will be interested in applying to the proposed program. Utah Valley University also has four pre-health profession advisors for pre-med, pre-dental, pre-occupational, and physical therapy students. At this time it is not anticipated that additional advisors will be needed.

There will not be a net gain of department chairs, administrative assistants, nor advisors in the near future.

Student Advisement

Describe how students in the proposed program will be advised.

Essentially the prerequisite courses and academic requirements for nursing and dental hygiene are the same as for respiratory therapy. Advising will follow the same academic tracts and will be essentially the same advisors. It is anticipated the pool of students who may be interested in respiratory therapy will be the same pool exploring nursing, dental hygiene or post-graduate health professions.

As soon as a student becomes interested in respiratory therapy and they meet with a pre-health advisor,

they will be informed of the admission requirements, encouraged to enroll in the RESP 1540 survey course, and coached in sequencing and enrolling in the appropriate prerequisite courses. As the student nears the application deadline, the advisors can guide them through the application process with the assistance of on-line forms and check lists to complete the process.

Once students are accepted into the respiratory therapy program, the program director and clinical coordinator will take over the advising portion. Each student that matriculates into the program will become part of a cohort that will be assigned to either the program director or the clinical coordinator as their faculty mentor. Each cohort will enter a lock step curriculum plan to completion that will take the students through the required lower division and upper division courses. The last two semesters each student will consult with their assigned faculty mentor to select and register for seven credits of upper division electives to finish the program, complete graduation requirements, and to take the credentialing exams offered by the NBRC.

Library and Information Resources

Describe library resources required to offer the proposed program if any. List new library resources to be acquired.

The Utah Valley University Fulton Library cultivates a changing collection of eBooks, streamed videos, and books that relate to medicine. Respiratory Therapy themed holdings are a subset of such a collection. As the influence of respiratory therapy continues to expand, UVU Fulton Library's Health Sciences collection development will match its content and direction.

Collections are housed primarily in the RC 705-RC 779 area, using the Library of Congress classification system, including resources in areas related to the specific subject area such as respiratory medicine, pulmonology, respiratory organs, respiratory diseases, and so forth. The library specialist assigned to health sciences will work with the department, faculty and staff to augment the current collection with additional books and electronic materials as required.

Resources are selected in collaboration with faculty to best support current and future classes at UVU, and are updated with peer-recommended lists and other review sources. Because of the relatively new age of the holdings, students have access to books of quality and currency.

Initial "one-stop-shopping" for articles/books/videos relating to respiratory therapy can be done by means of the UVU Fulton Library website's OneSearch feature, which allows a single search to simultaneously span multiple databases and includes a search of the library catalog's books, eBooks, and videos. (Each individual database can also be searched within the scope of the respective database website.)

EBook Collections

Currently the UVU Fulton Library has access to Safari Tech Books, NetLibrary, EBSCO and eBrary Nursing and Allied Health.

Databases

Currently, the UVU Fulton Library provides access to over 150 periodical databases. Those deemed useful for Respiratory Therapy include:

Academic Search Premier: A multidisciplinary database containing nearly 3900 peer reviewed journal titles.

CINAHL Plus with Full Text: A nursing and allied health database containing more than 4600 peer reviewed journal titles

PubMed: Maintained by the National Library of Medicine, this database contains high quality, peer reviewed articles in medicine, biology, respiratory therapy, anesthesiology and more.

Science Direct Journals: Peer reviewed journals from Elsevier, a premier publisher of health related journals

Cochrane Library: A collection of six medical related databases that specialize in evidence based medicine and include case studies, experiments, systematic reviews, etc.

Medline: General medical database of more than 4600 peer reviewed journals.

The following journals have specific application to the Respiratory Therapy Program and are immediately accessible through UVU's current library holdings or contracts.

1. **CHEST: Official Journal of the American College of Chest Physicians**
2. New England Journal of Medicine
3. Circulation
4. JAMA: Journal of the American Medical Association
5. Medicine
6. The Lancet
7. RESPIRATORY CARE: Official science journal of the American Association for Respiratory Care
8. RT: For Decision makers in Respiratory Care
9. Advances in Perinatal & Neonatal Nursing: Official Journal of the National Association of Neonatal Nurses
10. Pediatric Infectious Disease
11. Journal of Intensive Care Medicine A journal of Society of Critical Care Medicine

Other Journals that have specific application to the new program but are not part of UVU Fulton Library's holdings or contracts are as follows: *(If it is deemed necessary, an approximate expense to add these subscriptions is an ongoing fee of about \$5000.)*

12. The Lancet Respiratory Medicine
13. Journal of Neonatal-Perinatal Medicine
14. Neonatology
15. Pediatric Pulmonology
16. Journal of Pediatric Critical Care
17. Pediatric Critical Care Medicine: A journal of Society of Critical Care Medicine
18. Intensive Care Medicine

All of these journals listed above are accessible through PubMed, Medline, or Cochrane databases. Current catalog holdings for respiratory therapy are estimated as follows:

Books: 1819

eBooks: 283
Streamed videos: 16

Off-campus web access to library patrons is enabled by means of an LDAP login authentication layer that is enforced by the UVU Fulton Library EZProxy server.

A patron may often seek information (articles, books, etc.) that are not directly owned or licensed by UVU Fulton Library. In such cases, a desired item may be accessed from other libraries throughout the United States by means of the Interlibrary Loan service (ILL). A requested article full text is emailed to a requester within one business day. Print books are generally located, received, and made available within seven business days. In addition, UVU Library patrons have access to check out items from partner libraries of higher education in the Utah area (BYU, U of Utah, Utah State, etc.) by means of a Utah Academic Library Consortium (UALC) agreement.

It is not anticipated that new or additional library resources will be needed at this time.

Projected Enrollment and Finance

Use Appendix D to provide projected enrollment and information on related operating expenses and funding sources.

Section VI: Program Evaluation

Program Assessment

Identify program goals. Describe the system of assessment to be used to evaluate and develop the program.

The Respiratory Therapy AAS and BS programs will be accredited through The Commission on Accreditation for Respiratory Care (CoARC). CoARC accredits Respiratory Care Professional Practice degree programs at the associate, baccalaureate, and master's degree level in the United States. Program outcome measurements are set by this agency and meeting or exceeding the minimum standards is essential to maintain continuing accreditation status. Measures of the standards are required to be reported to NBRC in an annual report. The following is a summary of the assessments required of all respiratory therapy educational programs taken from the CoARC standards for program assessment (page 25-26).

1. Credentialing exam performance is evaluated by what CoARC has defined as 'NBRC CRT credentialing success' which is defined as the percentage of program graduates (not the percentage of those taking the test) earning the NBRC's CRT credential. This outcome measure is an annual reporting requirement by all accredited educational programs in respiratory therapy. Each program must submit their students' credentialing exam performance report in the NBRC Annual School Summary Report. The established threshold for credentialing success is 80%.

2. Attrition is defined by CoARC as the percentage of students who enrolled in a respiratory care program and began fundamental respiratory care coursework but left the program. Students who leave the program before the fifteenth calendar day from the beginning of the first term with fundamental respiratory care coursework, and those students transferring to satellites, are not included in program attrition. The established threshold for attrition is 40%.

3. Graduate and employer satisfaction surveys shall be administered six to twelve months after graduation. The established threshold for these surveys is that for each question at least 80% of returned graduate and employer surveys rate overall satisfaction three or higher on a five-point Likert scale.

4. On-Time Graduation Rate is defined as the number of students who graduate with their enrollment cohort (i.e., within thirty (30) days of their expected graduation date) divided by the total number of students in that class who ultimately graduated. The enrollment date and the expected graduation date of each cohort are specified by the program. The established threshold for on-time graduation is 70%.

Another program outcome that will be assessed will be the employment rate of program graduates. This will be defined as the percent of students who successfully complete the AAS and BS degrees in respiratory therapy who are employed as a registered respiratory therapist or related field within 12 months of completing the program.

In addition to the required assessment criteria of CoARC, the following five program outcomes will be assessed throughout the educational process of the lower division (AAS) and upper division (BS) curriculum. These outcomes fulfill five of the six to the Essential Learning Outcomes of Utah Valley University.

Students who successfully completed the lower division AAS component of the Respiratory Therapy curriculum will be able to:

1. Work effectively as a team member with physicians, nurses, therapists and patients as an integral part of the medical community.
2. Make correct interventional medical decisions based on assessment of patient needs and diagnosis within the scope of therapist driven protocols.
3. Comply with the ethical and legal parameters of HIPAA in the use and disclosure patients' health information.

In addition, students who successfully complete the upper division BS degree curriculum will be able to:

4. Evaluate and monitor patient responses to therapy and modify the prescribed therapy to achieve the desired therapeutic objectives.
5. Demonstrate awareness of the integrated nature and complexities of the health care systems and their impact on individuals and the local and national community.

Student Standards of Performance

List the standards, competencies, and marketable skills students will have achieved at the time of graduation. How and why were these standards and competencies chosen? Include formative and summative assessment measures to be used to determine student learning outcomes.

NBRC requires each accredited educational program to have the following goals defining minimum expectations of student Competencies and Skills:

To prepare graduates with demonstrated competence in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains of respiratory care practice as performed by registered respiratory therapists (RRTs).

Programs offering a BS in Respiratory Therapy are mandated to include the following program goals for student success as dictated by the CoARC standards:

To prepare leaders for the field of respiratory care by including curricular content that includes objectives related to acquisition of skills in one or more of the following: management, education, research, advanced clinical practice (which may include an area of clinical specialization).

According to CoARC, the scope of practice of Respiratory Therapists includes but is not limited to the following competencies.

1. Acquiring and evaluating clinical data;
2. Assessing the cardiopulmonary status of patients;
3. Performing and assisting in the performance of prescribed diagnostic studies;
4. Evaluating data to assess the appropriateness of prescribed respiratory care;
5. Establishing therapeutic goals for patients with cardiopulmonary disease;
6. Participating in the development and modification of respiratory care plans;
7. Case management of patients with cardiopulmonary and related diseases;
8. Initiating prescribed respiratory care treatments, managing life support activities,
9. Evaluating and monitoring patient responses to therapy and modifying the prescribed therapy to achieve the desired therapeutic objectives;
10. Initiating and conducting prescribed pulmonary rehabilitation;
11. Providing patient, family, and community education;
12. Promoting cardiopulmonary wellness, disease prevention, and disease management;
13. Promoting evidence-based practice by using established clinical practice guidelines and by evaluating published research for its relevance to patient care.

The curriculum is designed to develop all of the competencies and skills mentioned above. Every semester the students will have traditional formatted classes that present and teach the theoretical and practical basis of respiratory medicine. The cognitive based sections will have multiple formative exams testing each student's understanding of the physiology and pathophysiology of the diseases they will encounter and the therapeutic modalities used to treat those diseases.

Concurrently during the same semester the students will also attend a skills lab where they will learn essential practical skills such as how to set up and apply appropriate levels of medical oxygen, medication delivery systems, ventilator assisted breathing, conduct pulmonary function tests, etc. The skills based laboratories are intentionally designed to be competency based learning during which students individually pass off each of the essential skills learned.

Almost every semester the students will engage in the clinical setting with a registered respiratory therapist practitioner as a personal mentor. The mentor provides continuous instruction and formative feedback to the student throughout the clinical rotation. At the end of the rotation the mentor provides the instructors with a summative evaluation of the clinical behavioral traits and skills demonstrated by the student.

At the end of each semester or module, a comprehensive written and in some case practical exam will be administered to each of the students in the cohort. These exams serve as the summative evaluation of the student's progress and performance in the program.

Bachelor degree programs are also required by the NBRC to offer upper division required and elective courses, which help develop skills for management, clinical education, research or/and advanced clinical practice. Most of the required upper division courses help the student specialize in a specific area of clinical practice. The elective courses assist in developing managerial skills. All upper division curriculum provide both theoretical knowledge and practical experiences for which the students will receive formative feedback during the course and summative examinations at the end of the semester or module.

At the end of the program, all of the students will sit for the national credentialing exam administered by the National Board of Respiratory Care. The credentials of certified respiratory therapist and/or registered respiratory therapist are bestowed upon the students who successfully pass the national board exams. Those who pass one or both fo these exams are qualified to apply for state licensure as practicing repiratory therapists.

Appendix A: Program Curriculum

List all courses, including new courses, to be offered in the proposed program by prefix, number, title, and credit hours (or credit equivalences). Indicate new courses with an X in the appropriate columns. The total number of credit hours should reflect the number of credits required to be awarded the degree.

For variable credits, please enter the minimum value in the table for credit hours. To explain variable credit in detail as well as any additional information, use the narrative box at the end of this appendix.

	Course Number	NEW Course	Course Title	Credit Hours
General Education Courses (list specific courses if recommended for this program on Degree Map)				
General Education Credit Hour Sub-Total				37
Required Courses				
+ -			The AAS will require 24 hours of GE and the following courses: <input checked="" type="checkbox"/>	
+ -	MICR 2060 and MICR 2061	<input checked="" type="checkbox"/>	Microbiology for Health Professions	4
+ -	ZOOL 2420		Human Physiology	3
+ -	ZOOL 2425		Human Physiology Lab	1
+ -	RESP 1540	×	Survey of Respiratory Therapy	1
+ -	RESP 2145	×	Introduction to Basic Therapeutic Modalities Lab	3
+ -	RESP 2165	×	Equipment Management Lab	3
+ -	RESP 2210	×	Elementary Cardiopulmonary Anatomy and Physiology	3
+ -	RESP 2230	×	Cardiopulmonary Pathophysiology	2
+ -	RESP 2250	×	Basic Patient Assessment	2
+ -	RESP 2270	×	Application of Cardiopulmonary Diagnostics	4
+ -	RESP 2300	×	Basic Modalities in Respiratory Care I	3
+ -	RESP 2310	×	Basic Modalities in Respiratory Care II	3
+ -	RESP 2320	×	Essentials of Mechanical Ventilation	2
+ -	RESP 2330	×	Entry Level Respiratory Therapy Review	1
+ -	RESP 2520	×	Principles of Pharmacology	2
+ -	RESP 2705	×	Clinical Applications I	4
+ -	RESP 2715	×	Specialty Clinical Experiences	1
Choose _____ of the following courses:				
+ -				
+ -	RESP 2725	×	Clinical Applications II	3
Required Course Credit Hour Sub-Total				45
Elective Courses				
+ -			THE BS will have the previous AAS courses, 37 hours of GE and...	
+ -	ZOOL 4400		Pathophysiology	4
+ -	RESP 3210	×	Advanced Cardiopulmonary Anatomy and Physiology	2
+ -	RESP 3220	×	Advanced Cardiopulmonary Pathophysiology	2
+ -	RESP 3230	×	Advanced Cardiopulmonary Technology	2
+ -	RESP 3260	×	Neonatal/Pediatric Respiratory Care	2
+ -	RESP 3270	×	Adult Critical Care	2
+ -	RESP 3280	×	Patient Care Continuum/Quality Management	3

		Course Number	NEW Course	Course Title	Credit Hours
<input type="radio"/>	<input type="radio"/>	RESP 3765	×	Clinical Applications of Neonatal/Pediatric Respiratory Care	4
<input type="radio"/>	<input type="radio"/>	RESP 3775	×	Clinical Applications of Adult Critical Care	4
<input type="radio"/>	<input type="radio"/>	RESP 3785	×	Clinical Applications III / Continuum of Care	2
<input type="radio"/>	<input type="radio"/>	RESP 3800	×	Clinical Simulation Seminar	3
<input type="radio"/>	<input type="radio"/>	RESP 4615	×	Advanced Patient Assessment (1)	2
<input type="radio"/>	<input type="radio"/>	RESP 4630	×	Continuous Quality Assessment and Improvement	2
<input type="radio"/>	<input type="radio"/>			A minimum of 7 hours must be selected from the following upper <input type="checkbox"/>	7
<input type="radio"/>	<input type="radio"/>	RESP 3510	×	Anatomy and Physiology of Sleep (3)	
<input type="radio"/>	<input type="radio"/>	RESP 3520	×	Introduction to Sleep Disorders (3)	
<input type="radio"/>	<input type="radio"/>	RESP 3530	×	Instrumentation and Computers in Polysomnography (3)	
<input type="radio"/>	<input type="radio"/>	RESP 3550	×	Therapeutics of Managing Sleep Apnea (2)	
<input type="radio"/>	<input type="radio"/>	RESP 489R	×	Student Research (1-4)	
<input type="radio"/>	<input type="radio"/>	RESP 494R	×	Student Seminar (1)	
<input type="radio"/>	<input type="radio"/>	NURS 4520		Navigating Health Systems (3)	
<input type="radio"/>	<input type="radio"/>	HLTH 3800		Epidemiology (3)	
<input type="radio"/>	<input type="radio"/>	INFO 3700		Health Informatics Fundamentals (3)	
Choose of the following courses:					
<input type="radio"/>	<input type="radio"/>				
<input type="radio"/>	<input type="radio"/>				
Elective Credit Hour Sub-Total					41
Core Curriculum Credit Hour Sub-Total					123

Program Curriculum Narrative

Describe any variable credits. You may also include additional curriculum information.

Only one course has variable credit, RESP 489R, Student Research (undergraduate research). The number of credit hours is determined by the number of hours per week the student is working on the research project, but is limited to not exceed 4 credit hours per semester. This course has a credit hour to contact hour ratio of 1.0 credit per 3.0 of research hours.

Degree Map

Degree maps pertain to undergraduate programs ONLY. Provide a degree map for proposed program. Degree Maps were approved by the State Board of Regents on July 17, 2014 as a degree completion measure. Degree maps or graduation plans are a suggested semester-by-semester class schedule that includes prefix, number, title, and semester hours. For more details see <http://higheredutah.org/pdf/agendas/201407/TAB%20A%202014-7-18.pdf> (Item #3).

Please cut-and-paste the degree map or manually enter the degree map in the table below.

Degree Map for AAS:

Fall of First Year

BIOL 1010 or General Biology 3
BIOL 1610 College Biology I
MATH 1030/1040/1050 or higher Quantitative Literacy 3
PSY 1010 General Psychology 3
ENGL 1010 Intro to Writing 3
Total Credits 12

Spring of First Year

ZOOL 2320 Human Anatomy 3
ZOOL 2325 Human Anatomy Lab 1
CHEM 1110 Elementary Chemistry for Health Sciences 4
PHIL 205G Ethics and Values 3
RESP 1540 Survey of Respiratory Therapy 1
Total Credits 12

Fall of Second Year

ZOOL 2420 Human Physiology 3
ZOOL 2425 Human Physiology Lab 1
MICR 2060 Microbiology for Health Professions 3
MICR 2065 Microbiology for Health Professions Lab 1
HLTH 1100 or Personal Health and Wellness 1
PES 1097 or Fitness for Life
Any approved Physical Education, Health, Safety or Environment Course
Total Credits 9

Spring of Second Year

RESP 2210 Elementary Cardiopulmonary Anatomy and Physiology 3
RESP 2145 Respiratory Therapy Modalities Lab 3
RESP 2300 Respiratory Therapy Modalities I 3
RESP 2310 Respiratory Therapy Modalities II 3
RESP 2250 Basic Patient Assessment 2
RESP 2705 Clinical Applications I 4
Total Credits 18

Summer of Second Year

RESP 2320 Essentials of Mechanical Ventilation 2
RESP 2230 Introductory Cardiopulmonary Pathophysiology 2
RESP 2165 Equipment Management Lab 3
RESP 2270 Application of Cardiopulmonary Diagnostics 4
RESP 2330 Entry Level Review 1

RESP 2520 Principles of Pharmacology 2
RESP 2715 Specialty Clinical Experiences 1
RESP 2725 Clinical Applications II 3
Total Credits 18

Degree Map for B.S.:

Fall of First Year
BIOL 1010 or General Biology 3
BIOL 1610 College Biology I
MATH 1030/1040/1050 or Higher Quantitative Literacy 3
PSY 1010 General Psychology 3
ENGL 1010 Intro to Writing 3
HIST 1700 or American Civilization 3
HIST 2700 and US History to 1877
HIST 2710 or US History after 1877
HIST 1740 or US Economic History
POLS 1000 or American Heritage
POLS 1100 American National Government
Total Credits 15

Spring of First Year
ZOOL 2320 Human Anatomy 3
ZOOL 2325 Human Anatomy Lab 1
CHEM 1110 Elementary Chemistry for Health Sciences 4
ENGL 2010 or Intermediate Writing—Humanities and Social Sciences or * 3
ENGL 2020 Intermediate Writing—Science and Technology*
PHIL 205G Ethics and Values 3
RESP 1540 Survey of Respiratory Therapy 1
Total Credits 15

Fall of Second Year
ZOOL 2420 Human Physiology 3
ZOOL 2425 Human Physiology Lab 1
MICR 2060 Microbiology for Health Professions 3
MICR 2065 Microbiology for Health Professions Lab 1
HLTH 1100 or Personal Health and Wellness 2
PES 1097 Fitness for Life
Humanities Distribution 3
Fine Arts Distribution 3
Total Credits 16

Spring of Second Year
RESP 2210 Elementary Cardiopulmonary Anatomy and Physiology 3
RESP 2145 Respiratory Therapy Modalities Lab 3
RESP 2300 Respiratory Therapy Modalities I 3
RESP 2310 Respiratory Therapy Modalities II 3
RESP 2250 Basic Patient Assessment 2
RESP 2705 Clinical Applications I 4
Total Credits 18

Summer of Second Year
RESP 2320 Essentials of Mechanical Ventilation 2

RESP 2230 Introductory Cardiopulmonary Pathophysiology 2
RESP 2165 Equipment Management Lab 3
RESP 2270 Application of Cardiopulmonary Diagnostics 4
RESP 2330 Entry Level Review 1
RESP 2520 Principles of Pharmacology 2
RESP 2715 Specialty Clinical Experiences 1
RESP 2725 Clinical Applications II 3
Total Credits 18

Fall of Third Year

ZOOL 4400 Pathophysiology 4
RESP 3210 Advanced Cardiopulmonary Anatomy and Physiology 2
RESP 3270 Adult Critical Care 2
RESP 3280 Patient Care Continuum/Quality Management 3
RESP 3775 Clinical Practice/Adult Intensive Care 4
RESP 3785 Clinical Applications III /Continuum of Care 2
Total Credits 17

Spring of Third Year

RESP 3220 Advanced Cardiopulmonary Pathophysiology 2
RESP 3230 Advanced Cardiopulmonary Technology 2
RESP 3260 Neonatal/Pediatric Respiratory Care 2
RESP 3760 Clinical Application of Neonatal/Pediatric Respiratory Care 4
RESP 3800 Clinical Simulation Seminar 3
Upper Division Elective 3
Total Credits 16

Fall of Fourth Year

RESP 4615 Advanced Patient Assessment 2
RESP 4630 Continuous Quality Improvement 2
Upper Division Elective 3
Upper Division Elective 1
Total Credits 8

Appendix C: Current and New Faculty / Staff Information

Part I. Department Faculty / Staff

Identify # of department faculty / staff (headcount) for the year preceding implementation of proposed program.

	# Tenured	# Tenure -Track	# Non -Tenure Track
Faculty: Full Time with Doctorate	1		
Faculty: Part Time with Doctorate			
Faculty: Full Time with Masters		2	
Faculty: Part Time with Masters			
Faculty: Full Time with Baccalaureate			
Faculty: Part Time with Baccalaureate			
Teaching / Graduate Assistants	////	////	
Staff: Full Time			
Staff: Part Time			

Part II. Proposed Program Faculty Profiles

List current faculty within the institution -- with academic qualifications -- to be used in support of the proposed program(s).

	First Name	Last Name	Tenure (T) / Tenure Track (TT) / Other	Degree	Institution where Credential was Earned	Est. % of time faculty member will dedicate to proposed program.	If "Other," describe
Full Time Faculty							
	Mark	Bracken	T	Ph.D	BYU, RRT	20%	
Part Time Faculty							
	Robert	Guenter		B.S.	BYU, RRT	Per Credit Hour Ta	+
	Gary	Clawson		Ph.D.	BA Humanities BYU M.S. Health Science BYU	Per Credit Hour Ta	+
	David	Nielson		B.S.	RRT WSU. ASN Excelsior College	Per Credit Hour Ta	+

Part III: New Faculty / Staff Projections for Proposed Program

Indicate the number of faculty / staff to be hired in the first three years of the program, if applicable. Include additional cost for these faculty / staff members in Appendix D.

	# Tenured	# Tenure -Track	# Non -Tenure Track	Academic or Industry Credentials Needed	Est. % of time to be dedicated to proposed program.
Faculty: Full Time with Doctorate					
Faculty: Part Time with Doctorate			1	Ph.D. RRT with 20 years Teaching Experience in RRT	
Faculty: Full Time with Masters		2		M.S., RRT with 2 years teaching Experience in RRT Programs	100%
Faculty: Part Time with Masters			1	M.S. RRT with Experience Teaching in RRT programs	
Faculty: Full Time with Baccalaureate					
Faculty: Part Time with Baccalaureate			2	B.S. RRT With Experience Teaching in RRT programs	
Teaching / Graduate Assistants	////	////			
Staff: Full Time			1	Academic Advisor	25%
Staff: Part Time			1	Administrative Assistant Experience	30%

Appendix D: Projected Program Participation and Finance

Part I.

Project the number of students who will be attracted to the proposed program as well as increased expenses, if any. Include new faculty & staff as described in Appendix C.

Three Year Projection: Program Participation and Department Budget						
	Year Preceding Implementation	New Program				
		Year 1	Year 2	Year 3	Year 4	Year 5
Student Data						
# of Majors in Department	2,017	20	40	40	40	40
# of Majors in Proposed Program(s)	////					
# of Graduates from Department	2,019	0		20	20	20
# Graduates in New Program(s)	////					
Department Financial Data						
	Department Budget					
	Year Preceding Implementation (Base Budget)	Year 1	Year 2	Year 3		
		Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)	Addition to Base Budget for New Program(s)		
<i>Project additional expenses associated with offering new program(s). Account for New Faculty as stated in Appendix C, "Faculty Projections."</i>						
EXPENSES – nature of additional costs required for proposed program(s)						
<i>List salary benefits for additional faculty/staff each year the positions will be filled. For example, if hiring faculty in year 2, include expense in years 2 and 3. List one-time operating expenses only in the year expended.</i>						
Personnel (Faculty & Staff Salary & Benefits)	\$0	\$264,744	\$307,724	\$323,404		
Operating Expenses (equipment, travel, resources)	\$0	\$17,000	\$17,000	\$17,000		
Other:	\$0	\$0	\$0	\$0		
TOTAL PROGRAM EXPENSES	////	\$281,744	\$324,724	\$340,404		
TOTAL EXPENSES	\$0	\$281,744	\$324,724	\$340,404		
FUNDING – source of funding to cover additional costs generated by proposed program(s)						
<i>Describe internal reallocation using Narrative 1 on the following page. Describe new sources of funding using Narrative 2.</i>						
Internal Reallocation						
Appropriation						
Special Legislative Appropriation						
Grants and Contracts						
Special Fees						
Tuition		\$61,307	\$222,640	\$254,907		
Differential Tuition (requires Regents approval)						
PROPOSED PROGRAM FUNDING	////	\$61,307	\$222,640	\$254,907		
TOTAL DEPARTMENT FUNDING	\$0	\$61,307	\$222,640	\$254,907		
Difference						
Funding - Expense	\$0	(\$220,437)	(\$102,084)	(\$85,497)		

Part II: Expense explanation

Expense Narrative

Describe expenses associated with the proposed program.

Cost associated with starting and maintaining the program are primarily associated with the hiring of two full-time faculty, a program director, a clinical director, and the hourly budget to pay for adjunct faculty who teach as professionals in residence. The expenses directly associated with instructional cost will total \$281,744 for the first year and as more cohorts are added, the instructional cost will rise to \$323,404 per year. \$17,000 per year will be to pay for equipment associated with maintenance of simulation systems, computers, and travel.

Part III: Describe funding sources

Revenue Narrative 1

Describe what internal reallocations, if applicable, are available and any impact to existing programs or services.

In the realignment of the College of Science and Health (CSH) and the College of Aviation and Public Services CAPS, certain financial resources will be transferred from the CSH to CAPS. In the formation of the Department of Allied Sciences from what is now the Department of Dental Hygiene, there will be some reallocations for the new department. That will cover some of the administrative cost of the Respiratory Therapy Program.

Revenue Narrative 2

Describe new funding sources and plans to acquire the funds.

Funding for the program will only be state appropriation to base and by tuition. Tuition for the program will be normal undergraduate tuition