

Quinsigamond Community College

Academic Program Review

2008 - 2009

Program: Respiratory Care

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APR Completion Date: Spring 2009

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SECTION I: Competitive Analysis and Regional Labor Market Demand

A state can no longer pursue an effective strategy of economic development unless it also pursues, via education and training, an effective strategy of workforce development.

-Opportunity Knocks, Massachusetts Institute for a New Commonwealth, 2000

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1. Market Influences

- A. Provide a broad definition of this employment sector. List specific knowledge and skill requirements for employment in this field. If available, cite commonly accepted industry skill standards established for the field.**

Response:

Respiratory therapists work in a wide variety of settings to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders. Employment settings include acute care, chronic care, subacute care, extended care, and rehabilitation facilities; educational institutions; clinics; physician's offices; home care; sleep labs; diagnostic and research labs; and pharmaceutical companies. A respiratory therapist participates in clinical decision-making and patient education, develops and implements respiratory care plans, applies patient-driven protocols, utilizes evidence-based clinical practice guidelines, and participates in health promotion, disease prevention, and disease management. The respiratory therapist may be required to exercise considerable independent judgment, under the supervision of a physician, in the respiratory care of patients.

Job description:

Respiratory therapists may perform the following procedures:

- Acquiring and evaluating clinical data
- Assessing the cardiopulmonary status of patients
- Performing and assisting in the performance of prescribed diagnostic studies, such as obtaining blood samples, blood gas analysis, pulmonary function testing, and polysomnography
- Evaluating data to assess the appropriateness of prescribed respiratory care
- Establishing therapeutic goals for patients with cardiopulmonary disease
- Participating in the development and modification of respiratory care plans
- Performing case management of patients with cardiopulmonary and related diseases
- Initiating prescribed respiratory care treatments, evaluating and monitoring patient responses to such therapy, and modifying the prescribed therapy to achieve the desired therapeutic objectives
- Initiating and conducting prescribed pulmonary rehabilitation
- Providing patient, family, and community education
- Promoting cardiopulmonary wellness, disease prevention, and disease management
- Participating in life support activities as required and promoting evidence-based medicine, research, and clinical practice guidelines

The knowledge and skills for performing these functions are achieved through a program of classroom, laboratory, and clinical preparation. Biological and physical sciences required include: anatomy, physiology, chemistry, physics, microbiology, computer science, pharmacology, and pathophysiology. Coursework additionally required includes: mathematics, communications, psychology, medical ethics, and the social sciences. Professional coursework may include patient assessment, monitoring, and evaluation, diagnostic and therapeutic procedures, airway management and mechanical ventilatory support, infection control, basic and advanced life support, patient and caregiver education, rehabilitation and disease management, and health promotion/disease prevention. Clinical training in all aspects of respiratory care applicable to neonatal, pediatric, adult, and geriatric patients is also required. (Source: Commission on Accreditation of Allied Health Education Programs-Respiratory Care)

The American Association for Respiratory Care (A.A.R.C.) has identified the following knowledge, skills and attributes as necessary for success in the profession.

Knowledge:

Basic sciences (biology, chemistry, physics, microbiology)

- Human anatomy and physiology
- Medical terminology
- Pathophysiology
- Pharmacology
- Hemodynamics

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- Professional roles and functions
- Respiratory care theories and procedures
- Basic pulmonary function testing
- Neonatal and pediatric care
- Home care equipment and procedures
- Health promotion/disease prevention
- Understanding of cost containment
- Medical-legal aspects
- Ethics
- Knowledge of health care regulations
- Knowledge of computer science
- Knowledge of gerontology

Cognitive Skills:

- Reading skills
- Adequate math skills
- Organizational and time management skills
- Communication skills (oral, written, and listening)
- Critical thinking abilities (analytical skills, problem solving, judgment, decision making)

Psychomotor and Clinical Skills:

- Respiratory care implementation, planning, and evaluation
- Proficiency in basic therapeutics (gases, IPPB, aerosols, etc.)
- Proficiency in ventilator management
- Proficiency in respiratory mechanics
- Proficiency in basic pulmonary function testing
- Patient assessment skills (vital signs, breath sounds, etc.)
- Blood gas sampling, analysis, and quality control skills
- Airway management skills
- Patient education skills
- Proficiency in infection control

Attributes and Characteristics:

- Ability to handle stress
- Self- motivation (initiative)
- Desire to help others/people orientation (humanism)
- Tolerance
- Interpersonal skills
- Professionalism (image, pride, "career" vs. "job" attitude)
- Assertiveness
- Flexibility (ability to adapt to change)

Additionally, respiratory therapists need to understand the systems approach to the organization and delivery of health care, and be able to work in close collaboration with other health care practitioners.

Education:

An advanced RRT eligible level respiratory therapist must complete two or more years of formal training and education, and must secure an associate, baccalaureate, or graduate degree from an accredited Commission on Accreditation of Allied Health Education/American Medical Association program.

Licensure:

A license is required to practice as a respiratory therapist in the state of Massachusetts.

Methods of obtaining a license: A person may obtain a license to practice respiratory care by the following methods:

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- (a) By examination, as provided in M.G.L. c. 112, § 23S subsection (1) and 261 CMR 2.06;
 - (b) By reciprocal licensure, as provided in M.G.L. c. 112, § 23U and 261 CMR 2.03(2); or
 - (c) By obtaining a CRT or RRT credential from the NBRC, as provided in M.G.L. c. 112, § 23U.
- (Source: 261 CMR: BOARD OF RESPIRATORY CARE. Division of Health Professions Licensure, Department of Public Health, Commonwealth of Massachusetts at:
<http://www.mass.gov/Eeohhs2/docs/dph/regs/261cmr002.pdf>)

Credentialing:

A graduate is eligible to attempt the advanced-level RRT examination administered by the National Board for Respiratory Care (NBRC) having earned a minimum of an associate degree from an advanced level respiratory therapist educational program supported by the Committee on Accreditation for Respiratory Care (CoARC or accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), and having successfully completed the NBRC's entry-level CRT (Certified Respiratory Therapist) examination.

(Source: National Board for Respiratory Care at: <http://www.nbrc.org/ExamsRRT.htm>)

- B. Using relevant labor statistics indicate whether employment opportunities in this field are expected to increase or decrease over the next 3-5 years. Include national, regional, and local job market and salary information. Please cite the sources that you have used to make these predictions. (It is easier for Admissions and Marketing Departments to refer to these predictions if they can quote the source)**

Response:

Faster-than-average employment growth is projected for respiratory therapists. Job opportunities should be very good, especially for respiratory therapists with cardiopulmonary care skills or experience working with infants. Employment of respiratory therapists is expected to grow 19 percent from 2006 to 2016, faster than the average for all occupations. The increasing demand will come from substantial growth in the middle-aged and elderly population—a development that will heighten the incidence of cardiopulmonary disease. Growth in demand will also result from the expanding role of respiratory therapists in case management, disease prevention, emergency care, and the early detection of pulmonary disorders. (Source: Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2008-09 Edition*, Respiratory Therapists at <http://www.bls.gov/oco/ocos084.htm>)

Additionally, job openings will result from the need to replace experienced therapists/respiratory therapy educators who leave the profession due to retirement. “The profession is getting older. The mean age rose from 40 in 2000 to 44.59 in 2005” . . .and “based on the years of remaining service reported by respondents, respiratory care will lose nearly half of its current Program Directors within the next 10 years, along with about one-third of its Directors of Clinical Education and other faculty.”
(Source: Human Resources Survey, American Association for Respiratory Care, 2005)

According to data compiled by Economic Modeling Specialists, Inc. (EMSI) there will be a significant increase in respiratory care jobs between 2006-2016. It is projected that by 2016, Worcester County will see a 33% increase in the number of respiratory care jobs while the state of Massachusetts will experience a 28% increase and the nation will have a 25% increase. According to EMSI, when new and replacement jobs for this same time period are taken into consideration, the projected increase is considerably higher and is as follows: Worcester County: 83%, Massachusetts: 81%, and USA: 81%

EMSI reports the current median hourly earnings for respiratory therapists as follows: Worcester County: \$19.74, Massachusetts: \$26.20, and USA: \$23.14. It is not reported whether shift and other differentials were included in these figures.

(Source: EMSI/QCC: Occupation Report; Program Review Report; Worcester Region Jobs by Occupation as provided on the following page)

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**EMSI
Jobs by Occupation Report
2/28/08**

Description	2006 Jobs	2016 Jobs	% Chg	New & Rep. Jobs	% New & Rep.	Median Hrly Earns	State 2006	State 2016	State % Chg	State New & Rep. Jobs	State % New & Rep.	State Median Hourly Earns	National 2006	National 2016	Natl % Chg	Natl New & Rep. Jobs	Natl % New & Rep.	Natl Med Hrly Earns	Edu Lev
Respiratory therapists	222	295	33%	195	88%	\$19.74	2,268	2,901	28%	1,884	83%	\$26.20	102,969	129,167	25%	82,968	81%	\$23.14	AS
Respiratory therapy technicians	24	26	8%	7	29%	\$17.43	242	250	3%	59	24%	\$23.73	18,972	19,137	1%	4,168	22%	\$19.10	AS
	246	322	31%	203	82%	\$19.51	2,510	3,151	26%	1,944	77%	\$25.97	121,941	148,304	22%	87,135	71%	\$22.52	

(Source: Economic Modeling Specialists, Inc.)

According to the US Bureau of Labor Statistics, “Median annual earnings of wage-and-salary respiratory therapists were \$47,420 in May 2006. The middle 50 percent earned between \$40,840 and \$56,160. The lowest 10 percent earned less than \$35,200, and the highest 10 percent earned more than \$64,190. Median annual earnings of wage-and-salary respiratory therapy technicians were \$39,120 in May 2006. The middle 50 percent earned between \$32,050 and \$46,930. The lowest 10 percent earned less than \$25,940, and the highest 10 percent earned more than \$56,220”

<http://www.bls.gov/oco/ocos084.htm#outlook> date of access May 10, 2009. The results of the most recent nationwide Human Resources Study conducted by the American Association for Respiratory Care (AARC) present a similarly positive picture for the profession, noting that: (a) the mean hourly wage (including shift and other differentials) for respiratory therapists rose 38 percent, from \$19.62 in 2000 to \$27.03 in 2005; and (b) new graduate incomes increased by 24 percent, from \$16.15 in 2000 to \$19.97 in 2005. Additionally, projections derived from the survey indicate that the number of budgeted FTEs in acute care hospitals will reach 171,693 in 2010-up from 151, 559 in 2005. (Source: Human Resources Survey, American Association for Respiratory Care, 2005)

- C. Review and analyze the most recent three years of institutional data to determine whether graduates of this program have found employment in their field and/or transferred to a related four-year program in their field within one year of graduation. For each graduating class, please include references for the total number of graduates each year. For example, the class of 2005 included 38 graduates in _____; of those 83% or 31 students found jobs in their field while 17% or 7 students transferred to a four year academic program.**

What percentage of graduates found employment in their field the past three years?

Response:

Class of 2005: there were five Respiratory Care Program graduates; of those, 100% found employment in respiratory care.

Class of 2006: there were nine Respiratory Care Program graduates; of those, 100% found employment in respiratory care.

Class of 2007: there were five Respiratory Care Program graduates five; of those, 100% found employment in respiratory care.

(Source: Employer Surveys of Graduate Job Performance)

- D. What percentage of graduates transferred to a four-year institution of higher education over the last three years? To which institutions did they transfer?**

Response:

This question is not applicable to the Respiratory Care Program.

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- E. Please state how many of the students, and/or the percentage of students, who started the program within the past 3 years and transferred to another college before graduation.**

Response:

According to data provided by the QCC Office of IR, between 2001 and 2007 there were eight students enrolled in the Respiratory Care Program who transferred to another college prior to graduation.

Transfer Institutions of QCC Respiratory Care Program Non-Graduates 2001 - 2007	
	Frequency
Community College of Rhode Island-Lincoln	1
Community College of Rhode Island-Warwick	1
Mount Wachusett Community College	2
North Shore Community College	1
Worcester State College	3

(Source: QCC Office of Institutional Research)

- F. Please identify the specific occupations (and job titles, if possible) for which program graduates are prepared. Identify the types of employers that have hired graduates of this program within the last three years. Provide the names of eight-ten companies as examples of employers that have recently hired graduates. If possible, attach actual job descriptions.**

Response:

Refer to Section I, 1A for a description of the nature of the work.

Graduates of the Respiratory Care Program are prepared to assume the position of: Certified (Entry-level) Respiratory Therapist (CRT) and Registered (Advanced- level) Respiratory Therapist (RRT).

Potential employers include:

- Hospitals:
 - UMass-Memorial, Worcester, MA
 - St Vincent Hospital at Worcester Medical Center, Worcester, MA
 - Fairlawn Rehabilitation Hospital, Worcester, MA
 - Massachusetts General Hospital
 - Brigham and Women's Hospital, Boston
 - Children's Hospital, Boston, MA
 - Harrington Memorial Hospital, Southbridge, MA
 - Whittier Rehabilitation Hospital, Westborough, MA
 - Heywood Hospital, Gardner, MA
 - Emerson Hospital, Concord, MA
 - Bay State Medical Center, Springfield, MA
 - Hartford Hospital, Hartford, CT
 - Providence Hospital, Providence, RI
- Skilled Nursing Facilities/Extended Care Facilities:
 - The Greenery Extended Care Center, Worcester, MA
 - Parkview of Central MA, Leicester, MA
- Polysomnography Laboratories:
 - UMass-Memorial, Worcester, MA
 - St Vincent Hospital at Worcester Medical Center, Worcester, MA
- Home Health Agencies/Medical Equipment Supply Companies:
 - Apria Healthcare, Auburn, MA
 - New England Medical Homecare, Inc., Auburn, MA
 - North Atlantic Medical, Inc., Leominster, MA
 - Apple Homecare, Holden, MA

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G. Identify institutions to which students have transferred in the last three years.

Response:

According to data provided by the QCC Office of IR, between 2001 and 2007 there was one graduate of the Respiratory Care Program who transferred to another college.

Transfer Institutions of QCC Respiratory Care Graduates 2001 - 2007	
	Frequency
Mount Wachusett Community College	1

(Source: QCC Office of Institutional Research)

H. Please analyze how the market influences stated above will affect the degree or certificate program. Highlight those influences most likely to significantly impact the program over the next three to five years, explain why, and recommend strategies to ensure the program's competitiveness.

Response:

Current and projected market influences should continue to exert a positive impact upon the Respiratory Care Program, as these indicate that a need for graduate Therapists currently exists, with this need expected to increase. Employment of respiratory therapists is expected to grow 19 percent from 2006 to 2016, faster than the average for all occupations. The demand will come from substantial growth in the middle-aged and elderly patient population with cardiopulmonary disorders, as well as from the expanding role of respiratory therapists in case management, early detection /disease prevention, and emergency care.

(Source: Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2008-09 Edition*, Respiratory Therapists at <http://www.bls.gov/oco/ocos084.htm>)

Additionally, data compiled by Economic Modeling Specialists, Inc. (EMSI) predicts a 28% increase in jobs for respiratory therapists over the period of 2006-2016 on the state level, with a 25% positive change on both the regional and national levels. (Source: EMSI/QCC: *Occupation Report; Program Review Report; Worcester Region Jobs by Occupation*) (See Appendix A)

Similarly, the 2005 Human Resources Survey distributed by the American Association for Respiratory Care indicated that the hospital vacancy rate for respiratory therapists grew from 5.96 percent in 2000 to 8.65 percent in 2005, and a projected 11,695 budgeted FTE positions for respiratory therapists were vacant in a variety of health care settings throughout the United States.

(Source: Human Resources Survey, American Association for Respiratory Care, 2005)

Strategies to ensure program competitiveness include:

- Exploring the possibility of offering select components of the professional curriculum via computer-based distance learning
- Exploring more flexible/creative professional course scheduling options, e.g., weekend/evening courses to meet the needs of adult/non-traditional/employed students
- Exploring the feasibility of incorporating one or more certificate options within the framework of the existing Respiratory Care Program
- Exploring the possibility of an articulation agreement with Northeastern University's B.S. program
- Establishing a program alumni network to promote the Respiratory Care Program/profession both in industry and the community

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2. Programmatic Currency

- A. Describe all methods, both formal and informal, employed by the program coordinator and faculty members to insure curriculum currency. This may include, but not be limited to, active Advisory Committee involvement; regular meetings of program faculty focused on curricular review/revision; and part-time, contract work or consulting services provided by faculty members to local employers; etc. Provide specific examples of how these methods have positively impacted the program over the last 3 years.

Response:

The curriculum of the Respiratory Care Program is structured primarily in accord with the curriculum guidelines established by the Commission on Accreditation for Respiratory Care (CoARC) as required for accreditation. The Respiratory Care Program maintains curriculum currency through a variety of methods, both formal and informal. These include:

- Comparison of curricular content to National Board for Respiratory Care, Inc. (NBRC) Written Registry and Clinical Simulation Examinations for Advanced Respiratory Therapists Content Matrices is used to ensure that the curriculum provides: (a) the required cognitive content and (b) instruction in the procedural skills deemed necessary to professional competency by the profession's national credentialing agency. The NBRC Content Matrices provide the framework for the programmatic instructional plan and for defining the objectives of the Respiratory Care Program curriculum: "Curricular content should be periodically reviewed and revised to reflect... the material covered in the appropriate national credentialing examination(s) NBRC Examination Content Matrices... which are nationally accepted standards of roles and functions in respiratory therapy. Such nationally accepted standards should provide the basis for deriving the objectives and activities constituting the program's curriculum". (Source: Standards and Guidelines for the Profession of Respiratory Care, 2003; Commission on Accreditation of Allied Health Education Programs, and: <https://www.nbrc.org/LinkClick.aspx?fileticket=11wFLdt3URo%3d&tabid=60&mid=490>)
- Employer Surveys of Graduate Job Performance: These are distributed to employers within six months to one year of a student's graduation date, are employed in order to measure employer satisfaction with graduate performance on the job. These instruments, the use of which is mandated by the Commission on Accreditation for Respiratory Care (CoARC), provide direct employer assessment of graduates' technical/cognitive skills and professional attributes. This information provides indirect assessment of the currency/appropriateness of curriculum content as, per CoARC: "The purpose of this survey is to help faculty evaluate the Program's success in preparing graduates to function as competent respiratory therapists." (<https://www.coarc.com>)
- Graduate Surveys: Surveys are distributed within six months to one year post graduation in order to gather quantitative and qualitative data on graduate impressions of their experiences in the Respiratory Care Program. Graduates are asked to assess the quality and quantity of education received, as well as that education's relevance to practice and provision of preparation for the national credentialing examinations. The use of this instrument is also mandated by CoARC, and provides indirect assessment of curriculum currency in a manner similar to that described for the Employer Survey: "The purpose of this survey is to help faculty evaluate the Program's success in preparing graduates to function as competent respiratory therapists." (<https://www.coarc.com>)
- Personnel Program Resource Surveys: Surveys are distributed to the Respiratory Care Program's clinical faculty at the conclusion of each semester in order to assess (among numerous other factors) "the adequacy of student preparation to perform scheduled exercises in the clinical setting." (<https://www.coarc.com>) This information in the composite provides the Respiratory Care Program with a direct indication of the curriculum's currency and ability to prepare students for the realities of direct patient care/clinical practice.
- Direct input from the Respiratory Care Program Advisory Committee: Input is routinely solicited and is used to keep faculty abreast of local/regional needs in terms of the employee knowledge base/skills

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- requisite to the practice setting involved. This information is then utilized where feasible, in accordance with the curriculum content mandates imposed by the NBRC/CoARC to implement course/clinical practice revisions, additions, etc.
- Regularly scheduled physician input in the form of formal lectures and teaching rounds in the clinical setting: is incorporated throughout both the first and second years of the Respiratory Care Program. This input, mandated by CoARC, is used to convey information and perspective on current issues in respiratory care and cardiopulmonary therapeutics. This input helps to assure that students receive exposure to the most current information available within the medical community relative to a given disorder, issue or treatment approach.
- Respiratory Care Program faculty regularly participates in professional development activities such as the annual meeting of the Mass. Society for Respiratory Care: in order to maintain currency in professional practice and technology.
- Respiratory Care Program faculty maintain active memberships in professional organizations such as the American Association for Respiratory Care and the National Board for Respiratory Care, Inc., which cooperate to establish, maintain and promote appropriate standards of quality for educational programs in respiratory care.
- The results of graduate testing by the NBRC are continuously monitored for areas of weakness in graduate performance relative to national means. Content areas in which graduate performance is less than 100% of the national mean are reviewed, and revision/expansion, etc of the curriculum specific to these areas is conducted.
- The Respiratory Care Program Medical Director, in conjunction with Respiratory Care Program faculty, annually reviews curriculum content and the instructional methodologies utilized: in order to ensure the continued currency/appropriateness of both didactic and clinical course content. “The Medical Director of the program must provide the input necessary to ensure that the medical components of the curriculum, both didactic and supervised clinical practice, meet current standards of medical practice.” (Source: Standards and Guidelines for the Profession of Respiratory Care, 2003; CoARC/Commission on Accreditation of Allied Health Education Programs)
- Respiratory Care Program curriculum content is continuously reviewed and revised to reflect what is being done by respiratory therapists in the workplace and is based upon reference to the most current National Board for Respiratory Care Job Analysis.
- Internet resources (e.g., www.aarc.org; www.NBRC.org) are utilized to provide faculty with input as to changes within the profession, as well as with information relative to credentialing and other pertinent issues.
- Departmental subscriptions to periodicals and trade journals, e.g., *Advance for Respiratory Care Practitioners*, *AARC Times*, *Respiratory Care*, *The New England Journal of Medicine* and *Chest* are maintained in order to provide faculty with current information relative to the profession, professional practice standards and therapeutics/research.
- Plans for major changes to the curriculum are reported to the Respiratory Care Program’s Advisory Board, whose comments are invited and considered prior to final implementation of change. The review of didactic courses is led by the Respiratory Care Program coordinator through regularly scheduled program faculty meetings. Each faculty member is advised to consult the NBRC content matrices in the construction of their respective course plans and syllabi. Faculty members are encouraged to bring perceived needs for course and/or curriculum revision to the attention of the Respiratory Care Program coordinator for discussion and strategic development as needed. Review of the curriculum for clinical courses is also routinely discussed during “clinical site visits”, informal meetings between the Respiratory Care Program’s director of clinical education and program clinical instructors. Site visits are

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scheduled on an ongoing basis throughout the semester at each of the then in-use clinical sites. Mandatory clinical competencies are required for eligibility of examination for credentialing by CoARC/NBRC upon graduation, and are the basis for the structure of the clinical education process. Changes in the local clinical environments, site/instructor availability, type/number of educational experiences available at a given site, etc. are assessed, and student placement at clinical sites is structured to ensure that all students receive equivalent educational opportunities/experiences. The positive impact of these methods on the Respiratory Care Program within the last three years is demonstrated by receipt of full and unconditional 10 year re-accreditation status from the Committee on Accreditation for Respiratory Care/CAAHEP in 2007.

- B. Describe all the mechanisms in place, both formal and informal, which provide employers (or others outside of the institution - such as the local career center) with the opportunity to provide input to the program faculty. This may include, but not be limited to active Advisory Committee involvement, Career Placement Services, active involvement with the TEC, etc.**

Response:

The primary method whereby employers and others outside of the institution provide input to Respiratory Care Program faculty is via the Respiratory Care Program Advisory Committee; however, other mechanisms are also used. Local employers are surveyed yearly to ascertain their satisfaction with the skill, knowledge and affective characteristics of graduates of the Respiratory Care Program; additionally, input is sought from Respiratory Care Program graduates, to whom surveys are distributed between six-twelve months after graduation. Graduate surveys provide: (1) information as to how well prepared graduates felt to assume the role of advanced-level respiratory therapists in the workforce; and (2) suggestions from graduates for possible curriculum enhancement, based on their "real-world" experience as respiratory therapists. All survey data collected is utilized when matters of curriculum enhancement/ revision/ or change in subject-matter emphasis are taken under consideration by Respiratory Care Program faculty.

- C. Please list the professional conferences that faculty have attended over the last three years and what the benefits have been to your program.**

Response:

Annual Massachusetts Society for Respiratory Care Conference

Benefits to the Respiratory Care Program include professional networking, sharing of information relative to the most current standards of practice, therapeutics, and patient-care technology.

American Society for Respiratory Care Educators Summer Forum (2007)

Benefits as above; additionally, attendees were briefed upon the most recent developments in respiratory care education including: instructional methodologies, the development of meaningful educational goals and standards, and outcomes assessment strategies.

- D. Identify additional professional conferences that could benefit your program and include information on why they would be beneficial.**

Response:

AARC Congress

Attendance would be beneficial as the Congress provides opportunity to: extend professional knowledge; earn the CEU's required for licensing; hear original research/ scientific studies results; evaluate and compare products, services and solutions relevant to respiratory care; network with respiratory therapists, managers and other educators; benefit from sharing real-world experiences; find out what's going in specialty areas of practice; and review new research/ become familiarized with the latest in therapeutics.

Focus Conference

Attendance would be beneficial for reasons given above. The Focus Conference features a multi-day series of lectures and workshops in a variety of tracks, including: care of the adult cardiopulmonary patient; pediatric/neonatal pulmonary care; respiratory care education; respiratory care management; respiratory

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homecare and pulmonary rehabilitation; intensive care of the adult cardiopulmonary patient; and pediatric/neonatal pulmonary intensive care.

Annual Meeting of the Massachusetts Thoracic Society

Attendance would be beneficial as the MTS Annual meeting provides opportunity to: extend professional knowledge; earn CEU's required for licensing; learn of original research; review patient case studies and novel approaches to therapeutics; and to participate in /dialogue with pulmonary/critical care physicians and other health care professionals.

E. To what professional organizations/associations does faculty belong and how do those memberships benefit the program?

Response:

Both the Respiratory Care Program coordinator and the director of clinical education are members of the MA Society for Respiratory Care, the American Association for Respiratory Care, and the National Board for Respiratory Care. Membership in these organizations provide faculty with opportunity to: (a) participate in a variety of professional development activities, which, in turn, insures that key program personnel maintain currency in professional practice and associated technology; and (b) maintain a close working relationship with the groups which establish, maintain and promote appropriate standards of quality for educational programs in respiratory care. Such affiliations are crucial to maintaining the quality of the professional curriculum for which the Respiratory Care Program is known. Individually, the Respiratory Care Program Coordinator holds membership in the American Heart Association, the American Thoracic Society and the Society of Critical Care Medicine; the Respiratory Care Program Director of Clinical Education is a Certified Asthma Educator sponsored by the National Asthma Educator Certification Board (the National Asthma Educator Certification Board "provides voluntary testing programs used to assess qualified health professionals knowledge in asthma education. It is an evaluative process that demonstrates that rigorous education and experience requirements have been met." (<http://www.naecb.org>), and is a member of the American Association of Sleep Technologists and the American Polysomnographic Technology Association. These memberships reflect both personal interests, and specialty areas of practice with which each of the key faculty is involved. Affiliation with these groups significantly enhances the ability of faculty to introduce students to the diversity of healthcare practice, as well as to provide essential instruction in areas such as asthma education and critical care.

F. Identify additional professional organizations/associations that you feel could help your program become more successful and state why you believe they would be helpful.

Response:

American Lung Association (ALA)

In addition to its being known as the premiere national organization engaged in lung health research, education and advocacy, the American Lung Association (ALA) is also known for its collaboration with corporate, e.g. Abbott Nutrition, GlaxoSmithKline and AstraZeneca and other institutions which work to educate on lung disease and promote lung health. A formal association with the ALA, via representation on the Respiratory Care Program Advisory Committee for example, would be helpful in maintaining curricular currency, and could also provide students with additional opportunities for involvement in the areas of pulmonary health, tobacco control and disease prevention via the ALA's *E-Advocacy Network* and volunteer program.

The American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR)

The American Association of Cardiovascular and Pulmonary Rehabilitation is the premier professional organization dedicated to the development of its members who are involved in the profession of cardiovascular and pulmonary rehabilitation. Affiliation, through full-time faculty membership, in the AACVPR would provide additional educational and networking opportunities and help to keep faculty informed of new advances in the specialty area of rehabilitation, as well as of current legislative and reimbursement initiatives affecting the specialty.

The Association of Schools of Allied Health Professions (ASAHP)

The ASAHP emphasizes activities that aim to enhance increased funding opportunities for member-institutions to engage in research, leadership training, identification and dissemination of best practices in education,

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student recruitment into the health professions, and the development of benchmarking tools for scholarship, research, and finance. Any institution of higher education or health care institution which offers a degree or certificate in one or more allied health professions is eligible for institutional membership; however, individual membership is restricted to academic, clinical, or administrative staff of an ASAHP Institutional Member. Benefits of institutional and individual membership for full-time Respiratory Care Program faculty would include: (1) access to the ASAHP "Forum for Critical Issues", which provides a vehicle for communication of views and concerns to colleagues in allied health in educational institutions, professional associations, government and industry; (2) expanded networking: increased personal, professional, and institutional access to leaders in the health professions; (3) data access: access to current data and information on allied health education and cost-effective and innovative concepts, ideas, and developments; (4) professional development: additional opportunity to participate in highly advanced professional development activities through the Association's sponsored and co-sponsored conferences and meetings.

G. Provide a list of College Externships in which faculty have participated and explain how they have benefited your program.

Response:

Respiratory Care Program faculty have not participated in college externships.

H. Describe the internal process utilized by the program coordinator and faculty members to review and analyze input received with respect to program goals and objectives, curriculum content, etc. Remember these processes might be formal or informal. Provide at least one recent example of how feedback provided from an external source resulted in a positive change in the program.

Describe the cycle used (include both process and time frames) by program faculty to complete on-going program review. (Note: It is helpful with our accreditation processes if you can include some specific examples of input that have led to recent changes in the program.)

Response:

- The internal processes utilized by the Respiratory Care Program coordinator and faculty members to review and analyze input received with respect to program goals and objectives, curriculum content, etc include: ongoing review and revision of curriculum content to reflect both what is being done by respiratory therapists in the workplace based upon:
- Employer Surveys, Advisory Committee feedback and reference to the most recent National Board for Respiratory Care, Inc (NBRC) Job Analysis;
- The material covered in national credentialing examinations as reflected by the most current NBRC Examination Matrices. The NBRC Job Analysis and NBRC Examination Matrices are "nationally accepted standards of roles and functions in Respiratory Therapy." (Source: "Standards and Guidelines for the Profession of Respiratory Care"; CAAHEP/ CoARC, 2003; http://www.coarc.com/caahep_documents.htm);
- Respiratory Care Program faculty meet on a regularly scheduled basis several times/semester in order to review the strengths/weaknesses of their courses/labs, the suggestions/comments derived from the various survey tools utilized and the value of clinical education as assessed by student evaluations of both clinical sites and instructors. This information is considered for its value and appropriateness to the program's goals, mission and compliance with CoARC curriculum mandates.
- Ongoing review of student performance on and completion of procedural competency evaluations (as contained in the Respiratory Care Program clinical/laboratory text: "Laboratory Exercises for Competency in Respiratory Care" by Thomas J. Butler (Author), et al. FA Davis, Pub. 1998) by the

Director of Clinical Education/program clinical faculty in order to determine that the laboratory and clinical curriculums are appropriately preparing students with the technical skills necessary to successfully integrate academic theory and clinical practice.

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- Completion/submission of the Annual Report of Current Status to CoARC/CAAHEP as required for continuing programmatic accreditation.
- CoARC analysis of data is provided to the Respiratory Care Program on an annual basis, and the feedback generated by CoARC is utilized to insure that the Respiratory Care Program remains in compliance with established standards and meets all outcomes assessment thresholds mandated for accredited programs; and (e) Respiratory Care Program faculty generate/submit formal reaccreditation reports to CoARC/CAAHEP as required by the reaccreditation cycle (currently established at 10 year intervals, and last completed in 2006). Feedback received as the result of the 2006 formal report/reaccreditation site visit conducted by CoARC resulted in renovation of the Respiratory Care Program laboratory, and the acquisition of additional equipment and supplies with which to stock the new facility.
- QCC APR Cycle: “Every certificate and degree program offered by the College will participate in the Academic Review Process. It is projected that approximately four-six programs will be engaged in program review during any given semester. The instructional deans within the Division of Academic Affairs in conjunction with faculty coordinators developed the recommended schedule for the review cycle. To the extent possible, scheduling has been coordinated with projected timetables for those programs that undergo regular external program evaluations or re-accreditation processes. “(Source: 2008 Academic Program Review Guidebook, QCC). The Respiratory Care Program previously underwent APR in 2001.

I. Please provide an assessment of how effectively the program utilizes internal and external indicators in developing and revising curriculum, instruction, and programmatic requirements. In what ways might the College better support faculty’s efforts in this regard?

Response:

Assessment of the effectiveness of the Respiratory Care Program’s utilization of both internal and external indicators in developing and revising curriculum, instruction, and programmatic requirements is provided via CoARC/CAAHEP evaluation of the Annual Report of Current Status submitted by the Program. Acceptance of the Annual Report provides ongoing evidence that the Respiratory Care Program remains in substantial compliance with accreditation standards. “Programs will be reviewed annually by means of their Report of Current Status and/or such other reporting requirements as CoARC may establish.” (Source: Standard IV.B.1; Accreditation Policies and Procedures Manual. November, 2007. CoARC <http://www.coarc.com/policies.htm>)

Indicators and outcomes assessments examined during generation of the Annual Report include, but are not limited to: national credentialing examinations performance, programmatic retention/attrition, graduate satisfaction, employer satisfaction, job (positive) placement and programmatic summative measures. The College might better support faculty efforts in this regard by making ongoing tracking and assessment of data by trained personnel available. The Respiratory Care Program faculty are not formally educated as researchers/statisticians, and therefore possesses limited ability, as well as limited time, to analyze survey/statistical data returned, or to perform systematic follow-up for data return by graduates/employers, etc.

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- J. Summarize the strategies utilized to gain meaningful input from local employers and other sources and discuss how the program faculty use this input. Highlight the most effective approaches and recommend new or alternate methods for gaining valuable industry input. Identify institutional supports necessary to maintaining programmatic currency.**

Response:

This question has been addressed in preceding sections of this document (e.g., Section I, Part II A; Section I, Part II, D; Section I, Part II, E, etc.) The most effective approach, to date, has been utilization of input received

in response to Annual Report and Reaccreditation Report submission to CoARC. At this writing, the primary institutional supports necessary to maintaining programmatic currency include: provision of an operating budget sufficient to cover basic programmatic needs, e.g., equipment and supplies for the laboratory; current clinical simulation software, etc., as outlined by the Respiratory Care Program coordinator in the annual budget proposal; and trained support for research/data collection and in-depth analysis.

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3. The Pipeline: QCC Feeders

- A. Provide a comprehensive list of all known sources of applicants to this program. Be sure to consider both traditional and non-traditional students. The list may include, but not be limited to referrals from community-based agencies, employers or such state agencies as MA Rehabilitation Commission, Department of Transitional Assistance or Department of Employment & Training, Tech Prep programs, or transfers from vocational postgraduate programs and/or proprietary schools.**

Response:

Known sources of Respiratory Care Program applicants include: the QCC General Studies and undeclared student populations, college service-area health care facilities workforces, and, occasionally, “program change” applicants from one of the other health care programs offered by QCC. The Admissions Office also reserves one seat in each incoming freshman class for an applicant from the Worcester Pipeline; to date, however, respiratory care has had no applicants from this program.

- **Who are the current feeders to your program?**

Response:

The Respiratory Care Program current feeders are listed in the table below and will be discussed in the following response.

Respiratory Care Feeder Schools			
	2005	2006	2007
	Frequency	Frequency	Frequency
Anna Maria College		1	
Assabet Valley R V Tech HS		1	1
Auburn High School	2	1	
Bartlett High School	1		
Bayley-Ellard Reg Hs			1
Becker College (Worc. Campus)	1		1
Blackstone-Millville High School			1
Blackstone Valley Reg HS	1		
Bunker Hill Cmty College			1
Burncoat Senior H S	2	1	3
Central New England/Worc Jr Coll	1		
Clinton High School		2	2
Colorado Tech Coll		1	
Colorado St Univ	1		
Conant High School	1		
County Coll Morris			1
Dean College	1		
Doherty Memorial High School		1	2
Dubuque Senior Hs	1	1	
Fisher Jr College	1		
Fitchburg High Sch		1	
G Washington H S	1		
GED Fulfillment Center	1	3	2
Grace High School	1	1	
Grafton Mem Sr H S			1
Holy Name High School			1

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Holyoke Community College	1		1
Hs Ceeb Unknown	5	2	
Hs-Na-Re Country			1
Mass Bay Community College		1	2
Millbury Mem H S	1	1	1
Montachusett Reg V T	1		
Mount Wachusett Comm College	2	2	2
Nashoba Regional H S		1	
North High School	1		
Northbridge Jr-Sr Hs			1
Northeastern Univ			1
Oakmont Reg High Sch		1	2
Oxford High School			1
Pace Univ Plsntvl Brclf	1		
South High Comm Sch	1		1
Southbridge High Sch	1		
Springfield Coll	1	1	
St Peter-Marian High		2	1
Suffolk County Comm Coll Selden	1		
Sutton High School		1	
Tantasqua Reg H S	1	1	
Univ Central Florida	1		
Univ New Hampshire GLBT Conf.		1	1
Univ Southern Maine	1	1	
University of Mass Amherst			1
University of Mass Boston			1
University of Mass Lowell	1	1	
University of Tennessee	1		
Unknown College	1	2	3
Unknown High School	1		1
W Boylston High Sch	1	2	3
Wachusett Reg H S		1	1
Worcester State College	6	5	5
Worcester Technical Institute	1		
Worcester Vo-Tech Hs	1	1	
Total	48	41	47

(Source: QCC Office of Institutional Research)

• **Who is currently the primary feeder to your program?**

Response:

Worcester State College (WSC) appears to be the primary educational institution acting as a feeder to the Respiratory Care Program as sixteen students attended WSC prior to enrolling in the Program. Health care institutions such as UMMHC and St Vincent Hospital at Worcester Medical Center also serve as an external source of applicants.

A primary feeder is somewhat difficult to definitively identify. Applicants come to the Respiratory Care Program from a wide variety of sources, e.g., the military; emergency medical services; other health care occupations; health care workers in non-direct patient care jobs such as dietary, environmental services,

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secretarial services or other; the QCC general studies or undeclared student populations, etc.; however, applicants just as frequently come to respiratory care as the result of some meaningful personal experience with the profession, e.g., as the parent of a premature infant; as an asthmatic adult; as the friend/relative of a respiratory therapist.

- **Who should Admissions target to enhance enrollment to your program?**

Response:

Those who demonstrate the ability to succeed in challenging science and math courses taken on a multiple-credits concurrent basis are most likely to successfully complete the Respiratory Care Program; therefore, targeting high school populations such as those enrolled in AP science courses might be productive. Another potential market may be those who have applied to professional schools, such as medical/dental colleges, and failed to gain admission. Research would need to be conducted by the Admissions Office in order to determine the feasibility of gaining access to the latter population. Additionally, distribution of program-specific literature to physician's offices, hospital waiting rooms, public libraries, etc, might be another way to both increase public awareness of the profession of respiratory care, and to advertise the QCC Respiratory Care Program.

- **What potential “customized” feeders might the College be able to develop?**

Response:

Please refer to previous response.

- B. What is the profile of current student demographics? This information may be helpful in determining new feeders into the program.**

Response:

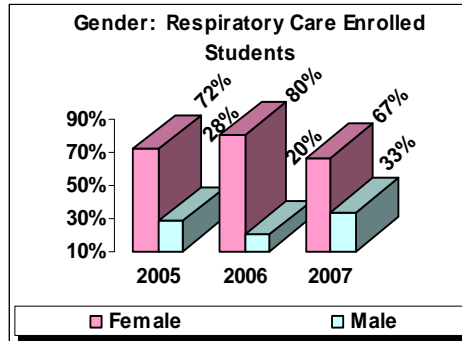
According to data provided by the QCC Office of IR, between 2005-2007 the majority of students enrolled in the Respiratory Care Program (72%, 80% and 85.19% respectively by year) self-identified as White/Non-Hispanic. During that same time period, 12% of the 2005 and 2006 members identified as Hispanic/Puerto Rican. The number of Black/Non-Hispanic students has increased slightly from 2005-2007, having held at one student from 2005-2006, followed by an increase to three students in 2007.

The data indicates that the profession remains primarily female; however, that is slowly changing. In 2005, males represented only 28% of the total class; in 2006, that number had dropped to 20% but by the class of 2007, male enrollments had shown a positive change with male enrollments have having risen from 20% in 2006 to 33.33% in 2007. During the period of 2005-2007, the average age of Respiratory Care Program students decreased from 37.72 in 2005, to 29.11 by 2007. When the data is analyzed by age groups, the majority of students enrolled between 2005-2007 were 23-39 years of age.

RACE/ETHNICITY: Respiratory Care Enrolled Students						
	2005		2006		2007	
RACE/ETHNICITY	Number	Percent	Number	Percent	Number	Percent
American Indian/Alaskan			1	4.00%		
Asian/Pacific Islander	1	4.00%				
Black/Non-Hispanic	1	4.00%	1	4.00%	3	11.11%
Hispanic/Puerto Rican	3	12.00%	3	12.00%		
Non Resident Alien	1	4.00%				
Not Reported	1	4.00%				
Other					1	3.70%
White/Non Hispanic	18	72.00%	20	80.00%	23	85.19%
Total	25	100.00%	25	100.00%	27	100.00%

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AVERAGE AGE Respiratory Care Program Enrolled Students	
YEAR	Average Age
2005	37.72
2006	30.08
2007	29.11



AGE GROUPS: Respiratory Care Enrolled Students						
	2005		2006		2007	
	Number	Percent	Number	Percent	Number	Percent
17 TO 22	2	8.00%	8	32.00%	6	22.22%
23 TO 29	5	20.00%	9	36.00%	11	40.74%
30 TO 39	8	32.00%	3	12.00%	6	22.22%
40 TO 49	5	20.00%	3	12.00%	3	11.11%
50 TO 64	5	20.00%	2	8.00%	1	3.70%
Total	25	100.00%	25	100.00%	27	100.00%

(Source: QCC Office of Institutional Research)

- C. List all articulation agreements currently in place in this program (i.e., agreements with local secondary schools, community-based organizations, proprietary schools, etc.). Attach the written agreements, if available. Please include the date of each agreement. Estimate how often these agreements are actually used by students.**

Response:

This question is not applicable to the Respiratory Care Program.

- D. Do program faculty regularly collaborate with their peers in local high schools, four-year colleges and universities, business and industry or community-based organizations on such activities as curriculum development, work-based learning, or professional development? If yes, please list what programs faculty have participated in with K-12, as well as each of the other categories, identify who convened the groups, and then cite examples of how this participation has benefited your program. Examples should be from the most recent three-year period. If there has been no recent collaboration, please comment on how this type of collaboration might enhance the program. In what ways could the College provide faculty support in this area?**

Response:

Faculty members of all Massachusetts respiratory care programs meet on an informal basis at an Educators Conference which is held in conjunction with the state society (MSRC, INC) annual meeting. The purpose of this conference is to discuss a variety of topics of interest to the respiratory care educational community. Recent discussion agendas (2006-2007) have included the following topics: admission processes/prerequisite

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requirements; recruitment strategies; writing meaningful course goals and objectives; the re-accreditation process; the development of on-line courses and the impact of distance learning on respiratory care education. Participation in these conferences has enhanced faculty's ability to remain broadly informed, as well as to network/share innovative ideas with peers. Collaboration with the other categories cited has been limited. The College might provide support in this area by offering additional release time to faculty interested in working with local healthcare institutions to design/offer mutually beneficial professional development/continuing education opportunities for those employed in respiratory care.

- E. Explain the mechanisms in place within the program to insure that students who have been granted credit through articulation agreement transition smoothly into the QCC program. In what ways could the College increase its support in these areas?**

Response:

This question is not applicable to the Respiratory Care Program.

- F. Explain the program's involvement with the area Tech Prep consortia or other educational collaboratives, if relevant. Identify the specific consortium, the name of the lead contact(s) for the consortium, and the specific role played by the College. Name the QCC liaison to the consortia; describe the nature of his/her involvement, and the results of this effort.**

Response:

This question is not applicable to the Respiratory Care Program.

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4. Role of the Program Advisory Committee

- A. Is there an active (meets at least once a year) Advisory Committee for this program? If so, please state how “active” the committee is, identify who facilitates committee involvement, etc. If the Advisory Committee has not been active over the last several years, attach a well-developed plan for implementing an Advisory Committee within the next six months.**

Response:

The Respiratory Care Program is mandated by its accrediting agency the Commission on Accreditation for Respiratory Care/Commission on Accreditation of Allied Health Education Programs (CoARC/CAAHEP) to maintain an active Advisory Committee. CoARC/CAAHEP requires that the Advisory Committee meet at least annually; the Respiratory Care Program typically holds an advisory committee meeting at least once per semester. Meeting is initiated, in all regards, by the Respiratory Care Program coordinator in conjunction with the program medical director. Agenda items/input are requested from the members prior to each Committee meeting; meeting minutes, handouts, etc are distributed electronically to all members after each meeting. On average, the majority of the meeting is led by the Respiratory Care Program coordinator and the director of clinical education. Active discussion typically occurs during meetings, and input from all participants is solicited. Meeting minutes are recorded and subsequently disseminated electronically, in so far as possible, by the Respiratory Care Program coordinator. Committee involvement is coordinated by the Respiratory Care Program coordinator, with the assistance of the director of clinical education and the program medical director.

“An advisory committee, which is representative of these communities of interest* must be designated and charged with the responsibility of meeting at least annually, to assist the Respiratory Care Program and sponsoring institutional personnel in formulating and periodically revising appropriate goals and learning domains, monitoring needs and expectations, and ensuring program responsiveness to change”.

(Source: Standards and Guidelines for the Profession of Respiratory Care; CAAHEP/CoARC;
http://www.coarc.com/caahep_documents.htm)

*“The communities of interest that are served by the program include, but are not limited to, students, graduates, faculty, college administration, employers, physicians, the public and nationally accepted standards of roles and functions.”

(Source: Standards and Guidelines for the Profession of Respiratory Care; CAAHEP/CoARC;
http://www.coarc.com/caahep_documents.htm)

- B. Attach a complete membership list, including full names, titles, and contact information for each member. Describe how committee members are identified and invited to participate. Provide a rationale for the composition of the current program Advisory Committee.**

Response:

Participation on the Respiratory Care Program Advisory Committee is typically invited via personal communication, e.g., phone call, letter or email as appropriate, from the Respiratory Care coordinator to the potential member. The Respiratory Care Advisory Committee is composed of individuals who represent the communities of interest served by the program. (See Part A, above).

- C. Explain the roles and responsibilities of this committee. Please attach formal committee membership agreements, contracts, or position descriptions, if available. Include information on the length of time committee members serve, as well as plans for recruiting new members. Attach any written materials forwarded to Advisory Committee members that explain their roles and responsibilities.**

Response:

Respiratory Care Program Duties and Responsibilities of the Advisory Committee:

An Advisory Committee is a group of persons who are chosen from the communities of interest to advise educators regarding an educational program. Committee members should provide advice and support to the program through regular attendance at scheduled meetings and participation in program issues throughout the year.

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Specific functions of the Respiratory Care Advisory Committee are to assist the program personnel in the following:

- Bridge the gap between the Respiratory Care Program and the community.
- Encourage up-to-date and relevant educational processes.
- Determine the need for a particular level of Respiratory Care Program in the community.
- Review Respiratory Care Program curriculum.
- Facilitate the acquisition of necessary equipment, textbooks and related library and audio-visual materials.
- Market the Respiratory Care Program.
- Locate qualified faculty.
- Job placement of Respiratory Care Program graduates.
- Annual review of the Respiratory Care Program goal(s) and objectives.
- Promote community service by Respiratory Care Program students.
- Ensure availability of appropriate clinical resources.
- Participate/assist in the accreditation process.

(Source: Advisory Committee Duties 6-2003: CoARC Notices, 02-04)

Prospective Respiratory Care Program Advisory Committee members are provided with the previously referenced Respiratory Care Program Notice after initial contact is made by the coordinator and it has been ascertained that interest in membership exists. No time limit is placed on membership on the Advisory Committee and no “formal committee membership agreements”, etc. are utilized at this time.

- D. Provide a summary of the key issues around which your Advisory Committee has had input on the program over the last 3 years. Include examples of how this input has been utilized to strengthen or significantly change the program.**

Response:

The key issues on which the Respiratory Care Program Advisory Committee has provided input over the last three years are: (1) a lack of required equipment in the Respiratory Care Program laboratory, and (2) the need for additional/redesigned space in which to hold laboratory courses. This input has been instrumental in facilitating the acquisition of equipment and renovation of the existing laboratory, as it conveyed to both college administration and to CoARC that legitimate and serious need existed in these areas.

- E. Suggest strategies for improving the overall effectiveness of the program Advisory Committee. Identify what, if any, institutional supports or technical assistance might be necessary to assist program faculty in implementing these strategies. Please be as specific as possible.**

Response:

The Respiratory Care Advisory Committee is reasonably effective in providing feedback, direction and suggestions to the Respiratory Care Program in its current format; however, the overall effectiveness of the Committee could potentially be enhanced through the more active involvement; e.g., attendance at Committee meetings, topic contribution to meeting agendas, etc., on the part of representatives, department directors, for example, from affiliating healthcare institutions. It is unclear as to what additional actions program faculty might take to make participation more likely, as various strategies such as running Committee meetings at 4pm as opposed to 9am have been tried with little success in resolving this particular issue. It might be helpful were the College to compensate Respiratory Care Advisory Committee members for their involvement in some non-monetary way; e.g., a free credit or non-credit course, a letter of appreciation from the President’s Office, or similar; additionally, the College might consider hosting an annual appreciation reception/dinner for members of all program advisory committees.

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5. Competition and Marketing Strategies

- A. Identify the program’s primary competitors. Describe the process utilized and/or the rationale to determine the list of competitors. Be sure to include all competitors, not just local schools and colleges. The response might include employer-based training programs or other “non-traditional” training/education efforts. Please comment on how “distance learning” might impact this program.**

Response:

Internal competitors

As an allied health program, the Respiratory Care Program has both internal and external competitors. Internally, programs such as Nurse Education, Radiologic Technology, Licensed Practical Nursing, Occupational Therapy, Allied Dental Services, Paramedic Technology, Surgical Technology, etc. are all competing for essentially the same pool of qualified students. Externally, the Respiratory Care Program at Quinsigamond Community College is one of seven respiratory care educational programs offered within the state. Five of these programs exist at other Commonwealth of Massachusetts Community Colleges: Berkshire Community College; Massasoit Community College; North Shore Community College; Northern Essex Community College, and Springfield Technical Community College. In addition, Northeastern University offers a Master of Science in Respiratory Therapy. This is a direct-entry program designed to prepare those who have completed a bachelor's degree in any discipline at an accredited university-but who lack a respiratory therapy background-for entry into the profession of respiratory care.

(Source: http://www.spcs.neu.edu/ms_respther/admissions)

Distance learning competitors

Independence University/California College for Health Sciences is the only institution to offer an accredited respiratory therapy program leading to an associate degree via distance learning.

(Source: <http://www.independence.edu/Aboutus/AboutUs.php>)

Employer-based and “non-traditional” training programs

This category is not applicable under NBRC credentialing examinations eligibility requirements. “Applicants shall have a minimum of an associate degree from a respiratory therapy education program supported by the Committee on Accreditation for Respiratory Care (CoARC), or its predecessor the Joint Review Committee for Respiratory Therapy Education (JRCRTE), or accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP).”

(Source: http://www.nbrc.org/crt_admission.htm)

- B. Select the three most significant competitors from the list above. Identify QCC’s program strengths and market niche with respect to these competitors. In other words, what makes QCC’s program the first choice as compared to the competition? Your comparison may include- but not be limited to - the following: curriculum, faculty credentials, laboratory facilities, expected job growth in the field over the next 3-5 years, cost per credit, institutional support mechanisms, etc.**

Response:

The primary competitor at this time is Independence University/California College for Health Sciences, which offers a distance-learning option for completion of the associate degree; the other competitors listed offer essentially identical respiratory care programs to that offered by QCC. All are CoARC accredited, and therefore must offer the mandated curriculum, employ faculty with the mandated minimum credentials and experience levels, etc. Northeastern University offers an advanced-degree, and so is not a direct “competitor” for the same student population as that targeted by the community colleges.

Quinsigamond Community College itself is widely recognized for its dedication to serving the educational needs of the academically, economically, and ethnically diverse population of central Massachusetts by offering a wide variety of transfer, career, and special needs courses, certificates and degree programs. The College makes available a variety of financial aid programs to prospective students for example: grants, loans, tuition waivers, work-study employment and scholarships such as those provided through the QCC Alumni Association, the Rev. Dr. Martin Luther King, Jr. Scholarship, and others. Also, additional financial assistance is available specifically to Respiratory Care Program students in the form of American Association for

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Respiratory Care and Massachusetts Society of Respiratory Care, Inc. scholarships.

The College's Student Services department offers a comprehensive network of integrated services and programs designed to support the teaching and learning process. Student Activities offers a variety of educational, cultural, recreational, and social events to the student body; and the Respiratory Care Club encourages student involvement in the profession, as well as in the student life of the College community.

The QCC Health Careers Center, the role of which is solely to advise and assist those potentially interested in a health career with successful prequalification for and application to their desired program, facilitates the applicant's progress through what may seem at times an overwhelmingly complex process.

QCC offers one of the lowest tuition rates in the region (\$129 per credit for Massachusetts residents and \$335 per credit for non-residents), and is ideally located in the geographic heart of the Commonwealth and easily accessible from all parts of Massachusetts, as well as from the neighboring states of Connecticut, Rhode Island and New Hampshire.

QCC's Respiratory Care Program, established in 1970, is the oldest respiratory care program offered within the community college system and has produced more than 350 graduates since its founding. The Respiratory Care Program's reputation for excellence is well known and performance on National Board for Respiratory Care credentialing examinations consistently exceeds national means. Of the graduates who seek employment within the profession, 100% are typically employed prior to or shortly after graduation.

Additionally, the QCC Respiratory Care Program offers prospective students the benefits derived from the following:

- Small class size: a maximum of 20 students are admitted to each incoming class
- A dedicated, effective full-time faculty. Both full-time faculty members are Registered Respiratory Therapists and Masters credentialed educators and possess a combined total of more than forty years of employment, clinical, laboratory, and classroom experience in the profession
- Extensive patient care experience prior to graduation as the Respiratory Care Program requires its students to complete 1,000 hours of clinical which is one of the most extensive clinical time requirements of any in-state Respiratory Care Program
- The opportunity for experience/exposure within a number of specialty areas such as:
 - neonatal intensive care at central Massachusetts' only level three, acute care neonatal ICU, located at the Memorial campus of UMASS-Memorial Health Care
 - pulmonary rehabilitation/chronic care at Kindred Hospital-Parkview of Central Mass
 - home care at North Atlantic Medical
 - pediatrics at UMASS-Memorial Healthcare and Children's Hospital, Boston
 - polysomnography at St Vincent Hospital at Worcester Medical Center (currently only as an observational experience)

C. Do you feel that there are particular issues that create a challenge to QCC's courses with respect to those of your competitors? If so, describe the issues or challenges and what you suggest the college do to remedy these challenges?

Response:

The essentials/content of the professional curriculum is mandated by CoARC/CAAHEP and by extension the National Board for Respiratory Care, Inc. Therefore, there are no specific challenges to QCC's courses with respect to competitors.

D. Does your program take part in Section 30 Training Agreements or Individual Training Accounts (ITAs) with the local Division of Unemployment Assistance Office (Workforce Central)? If yes, how many students have participated in your program through Workforce Central agreements in the last three years?

Response:

This question is not applicable to the Respiratory Care Program.

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- E. Explain the specific marketing strategies the College has employed with respect to this program over the last three to five years. Please do NOT list general marketing strategies here. Identify targeted marketing efforts relevant to your program specifically. Analyze enrollment patterns over the last three to five years in order to find out if there is a correlation. If so, attempt to determine which of the marketing strategies is most successful.**

Response:

To date, the College has not employed marketing strategies targeting/specific to the Respiratory Care Program.

- F. Have faculty members worked with Admissions, K-12 programs, industries, etc. in the past to assist with recruitment? If so, please describe.**

Response:

Full-time faculty members have traditionally attended high school guidance counselor meetings/breakfasts,, etc. and have participated in middle schools/high schools and community-based career fairs in order to provide information on the profession of respiratory care, and, specifically, on the QCC Respiratory Care Program. The faculty also maintains a close working relationship with both the Admissions Office and the Health Careers Center at QCC, and typically takes part in college sponsored recruitment/informational sessions and activities. Industry collaboration on the issue of recruitment is on-going, and is exemplified by the student sponsorship/admission agreement currently in effect between UMMHC and the Respiratory Care Program.

- G. Summarize your analysis of the competition and recommend new or alternative strategies for program marketing and student recruitment. Please include a description of the ways in which you believe program faculty can assist in enrollment efforts.**

Response:

Continued success of the Respiratory Care Program will depend upon the existence of a formal, program-focused marketing and recruitment plan. Suggestions for strategies specific to the Respiratory Care Program might include the following:

- Direct mail to potential applicants: high school/college biology, chemistry, pre-medicine, pre-nursing etc majors
- Creation/distribution of informational posters with postage- paid return information request cards (place in career centers, hospital public areas, etc. Return cards should request the name, address, e-mail, and telephone number of prospective applicants for follow-up)
- Presentations to high school and college science classes utilizing the American Association of Respiratory Care (AARC) "Life and Breath" videotape/slides
- Meetings with career counselors in local high schools/workforce training centers to provide them with up-to-date program and professional information, a copy of the AARC video, posters, brochures, information packages, etc.
- Rapid follow up of requests for information by the Admissions office
- Placement of Open Door "advertisements" describing the profession, the program, prerequisite requirements, etc.
- Placement of informational pieces in general circulation community newspapers such as the Spencer New Leader, Sturbridge Times, etc.
- Surveying of current students and recent graduates in order to determine what attracted these individuals to the profession, and specifically, to the Respiratory Care Program at Quinsigamond Community College.

Respiratory Care Program faculty have traditionally assisted with recruitment efforts by actively taking part in career fairs, working as advisors in the Health Careers Center, presenting the program/profession at local high schools, etc. Given that there are two full-time faculty members, both of whom possess extensive coordinator responsibilities in addition to their faculty teaching/advisement roles, it is difficult-if not impossible-for faculty to devote additional time above and beyond that which is currently being done on behalf of enrollment. It might be possible to enlist some of the Respiratory Care Program's adjunct faculty in enrollment efforts were the college willing to sponsor paid training and activity participation.

Section I: Competitive Analysis and Regional Labor Market Demand

6. Opportunities for Program Expansion

- A. **Are there other directions this program might evolve in order to sustain currency and quality? Be creative and include all possibilities. This is an opportunity to dream; don't be limited by feasibility, cost, or lack of facilities or resources at this point.**

Consider the following categories, but feel free to include other categories in your responses:

- **New certificate options within the program**
- **New concentrations within the program**
- **Different career ladder options within the program**
- **New associate degree program possibilities**
- **Development of modularized courses**
- **Continuing/professional education in the field (i.e., CEU's, prep for recertification, etc.)**
- **Distance education course development**
- **More proactive job placement/ support post-graduation**
- **Other...**

Response:

The primary direction into which the Respiratory Care Program might evolve is development of a Polysomnography Technology certificate option. A certificate option was developed and submitted to QCC College administration by the Respiratory Care Program Coordinator in 2002, but no action toward finalization of course/certificate approval was taken.

“CoARC...will allow respiratory therapy programs to apply for an optional specialized accreditation status in Polysomnographic Technology. This optional status will result in two major outcomes: (1) it will facilitate better trained and educated respiratory therapists, and (2) it will allow graduates of the program to be eligible to take the Comprehensive Registry Exam in Polysomnographic Technology (RPSGT) with only six months of work-related experience as opposed to 12 months under the current eligibility criteria.” (Source: “Respiratory Care: Polysomnography Certificate Curriculum Guide” published by: The Committee on Accreditation for Respiratory Care in collaboration with The American Association for Respiratory Care. <http://www.coarc.com/links.htm>)

A secondary direction into which the Respiratory Care Program might evolve is exploration of the feasibility of offering select components of the curriculum via distance education. This would, however, require a significant investment of faculty time which is currently not available. In addition to development of courses in a distance learning format, CoARC /CAAHEP accreditation Standards and Guidelines require that any program incorporating “multiple program designs” must: *“use program resource and outcome assessment to demonstrate that all such program variations result in equivalent graduate outcomes. The program should demonstrate that the teaching methods are valid for all students, that the evaluation systems are equivalent, and that the graduates of all program designs are equally competent. An example of multiple program design is the addition of distance learning to traditional instructional methods.”* (Source: www.caahep.org/documents/ForProgramDirectors/RT_Standards.pdf)

The Respiratory Care Program currently employs only two full-time faculty who teach the majority of the professional curriculum in addition to holding coordinator responsibilities; therefore, it is unrealistic to seriously consider this possibility unless/until the staffing level is adjusted.

SECTION II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

The complexity, variety, and importance of postsecondary credentials have grown substantially, especially since the 1980s, because the ties between postsecondary institutions and the world of work have grown in the knowledge economy. Access to postsecondary education has become the ante for individual career success and the modal requirement for a globally competitive national workforce. As a result, it is not surprising that the economic functions of postsecondary institutions are becoming more comprehensive. These forces are giving rise to the comprehensive university and the comprehensive community college: As higher education evolves, it increasingly emphasizes the utilitarian economic value of credentialed and non-credentialed knowledge and skill.

-Excerpted from *Help Wanted... Credentials Required*, Anthony P. Carnevale and Donna M. Desrochers, 2001.

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

This section should lay the groundwork for how the program will be measured. The goal is to examine instructional effectiveness within the program and to recommend ways to improve that effectiveness.

1. Foundations of the Program

- A. Describe the rationale for offering this degree with respect to environmental scan information (job outlook) and its unique niche in its particular employment sector. Please highlight those elements of the program that make it unique among its competitors.**

Response:

Current and projected market influences indicate that a need for graduate respiratory therapists currently exists, with this need expected to increase. The most recent Human Resources Survey, completed in 2005 and distributed by the American Association for Respiratory Care, indicated the hospital vacancy rate for respiratory therapists grew from 5.96 percent in 2000 to 8.65 percent in 2005. It projected that 11,695 budgeted FTE positions for respiratory therapists were vacant in a variety of health care settings throughout the United States.

According to the U.S. Bureau of Labor Statistics, employment of respiratory therapists is expected to grow 19 percent from 2006 to 2016, faster than the average for all occupations. The demand will come from substantial growth in the middle-aged and elderly patient population with cardiopulmonary disorders, as well as from the expanding role of respiratory therapists in case management, early detection /disease prevention, and emergency care. (Source: Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2008-09 Edition*, Respiratory Therapists at <http://www.bls.gov/oco/ocos084.htm>)

Additionally, data compiled by Economic Modeling Specialists, Inc. (EMSI) projects a significant increase in respiratory care jobs between 2006-2016. It is anticipated that by 2016, Worcester County will see a 33% increase in the number of new respiratory care jobs while the state of Massachusetts will experience a 28% increase and the nation will have a 25% increase. According to EMSI, when new and replacement jobs for this same time period are taken into consideration, the projected increase is considerably higher and is as follows: Worcester County: 83%, Massachusetts: 81% and the USA: 81%.

The Respiratory Care Program is the only source of graduate respiratory therapists within Worcester County. The majority of respiratory therapists employed by hospitals, clinics and private health care facilities in Worcester and its neighboring cities and towns are graduates of the QCC Respiratory Care Program. The current shortage and projected need for respiratory therapists, as well as the current high level of interest in the Respiratory Care Program, as demonstrated by the existence of a wait list for admission, demonstrates the value of the Respiratory Care Program to the College and its service area.

- B. Describe in measurable terms the program’s current expected student “learning outcomes”. Your response should include reference to general education outcomes, employability or “umbrella competencies”, career-related competencies or technical skills, and/or competencies required for successful transfer. (What will the graduate know and be able to do?) Please list 8-12 learning outcomes.**

Note: In designing programs of study, most faculty identify the expected outcomes for program graduates. For example, are students prepared to transfer, enter the workforce in a particular capacity, sit for a licensure exam, etc.? To support these end goals, faculty generally create program objectives. They may be referred to as “Program Objectives”, “Program Goals”, “Learning Outcomes”, etc. Essentially, we are open to whatever language best represents the language of your field or discipline and that meets the essential criteria of this project. Whatever terminology you use, the “objectives” or “goals” must be measurable and they need to embrace and/or reflect the competencies that students are expected to demonstrate upon graduation. From this point forward we have chosen to use the phrase “learning outcomes” to represent the intent described here. For career programs, the career-related or technical competencies are the targeted skills the particular program is designed to develop. Learning outcomes should be written to express the minimum level of competency acquired.

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

First, describe the core or “umbrella” competencies developed through the program. These are the general skills that all people must develop in order to be successful employees; they usually include skills such as learning to learn, teamwork, communication, etc. The SCANS (Secretary’s Commission on Necessary Skills, 1991) skills are often referred to as the standard definition of these general competencies.

Response:

The Respiratory Care Program learning outcomes are as follows:

General Education Competencies		
1	Reading Comprehension	Upon completion of the program, students will be able to understand, to analyze, and to evaluate readings from a variety of texts and to apply that learning to academic, personal, and professional contexts
2	Effective Communication	Upon completion of the program, students will be able to effectively use the English language, writing and speaking with clarity, coherence, and persuasiveness.
3	Critical Thinking	Upon completion of the program, students will be able to think critically, independently, and creatively so that they can make informed and logical judgments of the arguments of others, arrive at reasoned and meaningful arguments and positions, and formulate and apply ideas to new contexts.
4	Quantitative Reasoning	Upon completion of the program, students will be able to comprehend and use quantitative concepts and method to interpret and to critically evaluate data and to effectively problem-solve in a variety of contexts demanding quantitative literacy
5	Information Literacy	Upon completion of the program students will be able to locate access, analyze, and utilize information that facilitates learning and critical inquiry and to adhere to the standard of academic honesty in their use of that information.
6	Diversity Competency	Upon completion of the program students will demonstrate the awareness, understanding, and respect necessary to live in a diverse world, as well as and ability to work cooperatively and effectively in multidisciplinary and diverse teams.
7	Professional Competency	Be a competent advanced-level graduate Respiratory Care Practitioner
8	Professional Competency	Demonstrate professional behaviors consistent with employer expectations of an advanced-level Respiratory Care Practitioner
9	Professional Competency	Demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to his/her role as an advanced-level Respiratory Care Practitioner.
10	Professional Competency	Demonstrate the technical/psychomotor skill necessary to fulfill his/her role as advanced-level Respiratory Care Practitioner
11	Professional Competency	Demonstrate the ability to successfully work as a healthcare team member, and to interact successfully with physicians and other health care professionals

Per the Commission on Accreditation for Respiratory Care, the Respiratory Care Program requires that upon completion of the courses in the professional curriculum, students will be able to demonstrate the professional competencies listed in the table above. Overviews of general graduate employability/career-related competencies/technical skills required by CoARC are provided on the *Employer Surveys of Graduate Job Performance*-see Appendix E. (Source: Employer Survey), as well as on the National Board for Respiratory Care, Inc. RRT and CSE Examinations Matrices. (Source: <https://www.nbrc.org/LinkClick.aspx?fileticket=11wFLdt3URo%3d&tabid=60&mid=490> ; and <https://www.nbrc.org/LinkClick.aspx?fileticket=6KGiOstdVGw%3d&tabid=60&mid=490>, respectively.)

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The summative programmatic goal is to graduate competent advanced level respiratory therapists, which is mandated by the Committee for Accreditation for Respiratory Care: “The program must have the following goal defining minimum expectations: ‘To prepare competent respiratory therapists in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains...Programs adopting educational goals beyond entry-level competence must clearly delineate this intent and provide evidence that all students have achieved the basic competencies as well as specified advanced competencies prior to entry into the field.’” (Source: CAAHEP 2003 Standards & Guidelines for the Profession of Respiratory Care. Section II. Program Goals: Part C. Minimum Expectations at http://www.caahep.org/documents/ForProgramDirectors/RT_Standards.pdf) Please refer to Appendix J: QCC Respiratory Care Program Goals and Standards Fall 2007.

Additionally, “each Respiratory Care Program should incorporate within its goals and learning domains the expectation that graduates shall consistently demonstrate competence at the level for which they were prepared, as periodically defined by nationally accepted standards of practitioner roles, functions and behaviors. Such statements should clearly identify the specific competencies in each learning domain expected of program graduates. These competencies should provide the framework for structuring the program's instructional plan and for defining the objectives of its curriculum.” (Source: CAAHEP 2003 Standards & Guidelines for the Profession of Respiratory Care. Section II. Program Goals: Part C: Minimum Expectations at http://www.caahep.org/documents/ForProgramDirectors/RT_Standards.pdf). In this context, the Respiratory Care Program defines graduate "competencies achievement" as successful completion of the National Board for Respiratory Care, Inc. credentialing examination(s) and the achievement of satisfactory cut scores/compliance with outcomes assessment thresholds as established by CoARC on *Employer Surveys of Graduate Job Performance* and *Graduate Surveys*. See Appendix E: Employer Survey and Appendix F: Graduate Survey.

Outcomes Assessment Thresholds set by CoARC can be found at <http://www.coarc.com/thresholds.htm> and are provided in Appendix I: Outcomes Assessment Thresholds.

C. Describe how the program supports the College’s mission as well as the current Strategic Plan.

Response:

The Quinsigamond Community College Respiratory Care Program reflects the goals and objectives of the College's mission to create and offer programs of educational relevancy that serve the diverse needs of the Central Massachusetts population. Through its integration of academic, career, and technical skills preparation, the Respiratory Care Program, in conjunction with the College "core" curriculum competencies (communicational/analytical/computational/technological), prepares its graduates for immediate entry into the workforce or transfer to four-year institutions. Additionally, the preparation provided by the Respiratory Care Program may serve as a foundation upon which transition into supervisory, educational, or similar career-related advanced roles may be based

The Respiratory Care Program supports the key elements of the College’s current Strategic Plan as follows:

Workforce Needs

“The Massachusetts Division of Employment and Training projects a nine percent growth in the number of jobs in Massachusetts between 1998-2008 there will be a rapidly growing demand for business and technical services as well as health and social services needed by an aging population. The service sectors producing the most growth include... health services (25%)”

The Respiratory Care Program is the only source of graduate respiratory therapists within Worcester County; and, as such, is ideally positioned to respond to the predicted growth in the area of health services. Additionally, the Respiratory Care Program is unique among the college’s allied health programs, as students who successfully complete the freshman year are eligible to apply to the MA Department of Public Health for a “Limited Permit” which allows the student to provide respiratory care services to clients as paid employees of health care facilities, home care companies, etc. The opportunity to obtain a Limited Permit after the completion of one year in the Respiratory Care Program is a boon to both students and employers, and enables the early entry of additional health care providers into the workforce. More information on the “Limited Permit” is available at <http://www.mass.gov/Eeohhs2/docs/dph/regs/261cmr002.pdf>)

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Educational Needs

“The educational needs of entering students based on the College Placement Tests (CPT) indicate that the College can expect the current pattern of high demand for developmental education courses to continue.”

Respiratory Care Program faculty work closely with the Advising Center, the Health Career Center, Experience Based Education and Disability Services in order to facilitate the preparation of those requiring developmental coursework for entry in to the Respiratory Care Program. Once matriculated in the Respiratory Care Program, students are assigned to Program faculty advisors who are readily available to assist them in developing and implementing both short term and long term academic and career goals.

Technology

“All evidence suggests that ...technologies will ...have significant implications for the educational curriculum.”

The Respiratory Care Program has long integrated technology into the curriculum. The American Association for Respiratory Care (A.A.R.C.) has identified “knowledge of computer science” as one of the knowledge, skills, and attributes necessary for success in the profession; therefore, for many years CIS 111 Introduction to Microcomputer Applications or equivalent was a required course within the curriculum. As technologies spread throughout society, and such technologies became both accessible and increasingly user-friendly, it was determined that this development was being reflected in the skills of incoming students-virtually all of whom were at least familiar, if not very well-versed, in the use of such technology-at which point the need for CIS 111 was discussed among faculty and with the Respiratory Care Program Advisory Committee. A decision was then made to remove CIS 111 from the curriculum as a required course; the course may still be taken as an elective by those wishing to improve their skills in this area. Information and telecommunications technology is also routinely utilized by Respiratory Care students in the clinical setting for record-keeping and sharing of client information with other allied health personnel, nurses, and physicians. Technology is an integral part of

classroom/clinical/lab courses as well in the form of PowerPoint presentations, the use of clinical simulation and National Board for Respiratory Care “practice” credentialing examinations software, electronic client health recordkeeping, and a variety of interactive, technologically advanced manikins/software available in the Respiratory Care Program laboratory.

Market Trends and Strengths

“State and regional trends indicate that healthcare, technology, and business will continue to play a dominant role in the economics of Central Massachusetts.”

As the only such program in central Massachusetts, the QCC Respiratory Care Program is the primary source of graduate respiratory therapists to the College’s service area. As noted in Section I, all indicators suggest that employment opportunities for respiratory therapists will remain plentiful locally, regionally and nationally, and wages are competitive with those of other comparably educated allied health professionals. With healthcare projected to continue to play a dominant role in the economics of the region, it is reasonable to assume that the Respiratory Care Program will continue to support the region’s economic growth by training graduate therapists.

The Respiratory Care Program similarly supports the College’s Strategic Plan in that it is responsive to and supportive of the workforce and educational needs of the diverse population served by the College, as well as to the communities of interest: employers, clients, other allied health professionals who are directly involved with the respiratory care profession and the provision of respiratory care services.

D. State the Program’s current mission statement, if available.

Response:

The Respiratory Care Program mission statement is as follows: “The Respiratory Care Program will seek to educate individuals who, upon completion of the program, will be able to demonstrate advanced -level clinical skills and academic knowledge essential to the professional practice of respiratory therapy. Through integration of personal and professional values, theoretical knowledge and clinical proficiency, graduates will meet both employer expectations and the standards of professional and ethical conduct established by the

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

American Association for Respiratory Care”. (Source: “Statement of Ethics and Professional Conduct.” AARC Position Statement, 12/2007. http://www.aarc.org/resources/position_statements/ethics.html)

- E. Provide summary comments addressing the program’s cohesiveness, its design and requirements relative to the program objectives, and assess how well it is positioned to respond to changes in the marketplace.**

Response:

The Respiratory Care Program is structured in accordance with the standards and guidelines for accredited programs established by the Committee on Accreditation for Respiratory Care/CAAHEP. As such, the Respiratory Care Program curriculum and its programmatic objectives are delineated by its accrediting bodies. CoARC/CAAHEP in turn have derived their requirements from the input of “ the professionals involved in ... the discipline and are intended to reflect what a person needs to know and be able to do to function successfully” within the respiratory care profession.

As a CAAHEP accredited program, the QCC Respiratory Care Program is positioned to respond readily to changes in the marketplace: “CAAHEP... Standards are approved by the CAAHEP Board of Directors and are subject to review every five years. The Standards review process is a rigorous one that includes, input from the communities of interest, a public open hearing, and approval by the Committee on Accreditation and its sponsoring organization(s)... The benefits (to accreditation) cited most often are: marketing, *outside quality assurance*, *maintaining curriculum currency* and an ability for graduates either to sit for certification/licensure exams and or obtain employment.”

(Source: CAAHEP at: <http://www.caahep.org/Content.aspx?ID=1>)

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

The intent of this part of Section II is to focus primarily on the proposed revisions to the current curriculum. Program modifications are subject to the governance process before adoption. Each Program Coordinator will need to schedule a time to meet with his or her instructional dean in order to review the necessary governance forms that must be completed prior to curriculum modifications being forwarded to the division for review. Please check the accuracy of the course prerequisites, course numbering, etc.

2. Curriculum

A. Based on the analysis of regional labor market needs, identify those areas that you believe require enhancement

Response:

“The scope of the Respiratory Therapist’s professional practice is undergoing significant expansion...with this expansion comes the need for an increasingly sophisticated knowledge base- especially in the areas of cardiopulmonary assessment/management of clients ... an increasingly in-depth understanding of both anatomy and physiologic processes (in health *and* disease) will be required of practitioners if they are to continue to provide quality care.” (Source: Human Resources Survey, American Association for Respiratory Care, 2005. See: <http://www.coarc.com>)

The Respiratory Care Program curriculum is structured in accordance with guidelines established by the Program’s accrediting agencies (CoARC/CAAHEP); additionally, comparison of curriculum content to National Board for Respiratory Care, Inc. (NBRC) Written Registry and Clinical Simulation Examinations for Advanced Respiratory Therapists Content Outlines is ongoing to ensure that the current curriculum provides: (a) the cognitive content, and (b) instruction in the procedural skills deemed necessary to professional competency by the profession’s national credentialing agency. These NBRC Content Outlines provide the framework for the programmatic instructional plan, and for defining the objectives of the Respiratory Care Program curriculum. Based upon the increasingly sophisticated coverage of basic cardiopulmonary anatomy/physiology and pathophysiology required by the most recently reviewed examination content matrices, there are three relatively minor changes proposed to the current curriculum.

Recommendations are as follows:

- A **one-credit increase** in credits assigned to RCP 111 Medical Lectures I (currently two credits).
Rationale: This change is proposed in order to provide additional instructional time, which is required in order to more comprehensively present the subject matter.

Course description: RCP 111 Medical Lectures I

“This course covers normal pulmonary and cardiovascular anatomy and physiology, ventilation, oxygen transport, carbon dioxide transport, and oxygen saturation. An introduction to the pathophysiology associated with oxygen deficiency will also be included.” F

- A **one-credit increase** in credits assigned to RCP 114 Medical Lectures IV (currently two credits).
Rationale: This change is proposed in order to provide additional instructional time, which is required: (a) in order to more comprehensively present the subject matter, and (b) in order to incorporate additional patient case management studies.

Course description: RCP 114 Medical Lectures IV

“This course explores the etiology, clinical presentation, pathologic features, diagnostics and treatment of pathologies commonly encountered in Respiratory Care practice. The focus is upon cardiopulmonary and other systems disorders as these present in the adult client. Case studies/independent research/writing and physician lectures are utilized to help promote the student’s understanding and to develop the student’s critical thinking skills.”

Prerequisites: BIO 112, RCP 113. S

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

- **Course name change:** (current) RCP 243 Pediatrics/Perinatology to RCP 243 Pediatric and Neonatal Respiratory Care.
Rationale: This change is proposed in order to more accurately reflect current course content and focus.

Course description: RCP 243 Pediatrics/Perinatology

“This course covers the normal and pathophysiological events that affect the cardiopulmonary status of the fetus, infant, and child. Students study fetal development, the nature and physiology of neonatal and pediatric pathology and the application of this information in the clinical setting. Other topics include neonatal resuscitation and advanced life support.”

Prerequisites: BIO 112. S

B. Include an overview of the proposed curriculum (using the layout provided in the current catalog) for each of the current or proposed options in the program. Provide course descriptions for each course.

Response:

Descriptions of the courses impacted by the proposed changes appear above; descriptions of the additional courses required in the degree Respiratory Care Program may be found in the current college catalog. The proposed changes do not create Respiratory Care Program “options”, as the basic curriculum and course sequence are not altered.

Both the current curriculum and the proposed 2-course credit increases and single course name change appear in the curriculum grids on the following pages.

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

RESPIRATORY CARE - Associate in Science

CURRENT

CURRENT Course Title	Course #	Offered	Plan to Take	Grade	Credits	Prerequisites
Cluster A						
Anatomy & Physiology I	BIO 111	F/S/SU			4	BIO 101 or AP Biology. Coreq-ENG 101
English Composition & Literature I	ENG 101	F/S/SU			3	ENG 100
Fundamentals of Respiratory Care I	RCP 103	F			2	Coreq-RCP 121
Medical Lectures I	RCP 111	F			2	
Clinical I ²	RCP 121	F			3	Coreq-RCP 103
Pharmacology ³	RCP 141	F			3	Coreq- RCP 111
Cluster B						
Anatomy & Physiology II	BIO 112	F/S/SU			4	BIO 111
English Composition & Literature II	ENG 102	F/S/SU			3	ENG 101
Physics for Respiratory Care	PHY 103	S			2	MAT 095
Fundamentals of Respiratory Care II	RCP 104	S			2	RCP 103, RCP 121. Coreq-RCP 122
Medical Lectures II	RCP 112	S			3	RCP 111
Clinical II	RCP 122	S			3	RCP 103, RCP 121, RCP 141. Coreq-RCP 104
Cluster C						
Critical Care I Laboratory	RCP 230	SU			1	BIO 112
Cluster D						
Introduction to Psychology or	PSY 101	F/S/SU				ENG 100 or approp place score
Psychology of Interpersonal Relations	PSY 118	F/S/SU			3	Coreq-ENG 100 or approp place score
Medical Lectures III ¹	RCP 113	F			3	BIO 112, RCP 112
Cardiopulmonary Technology	RCP 131	F			2	BIO 112
Clinical III	RCP 221	F			5	BIO 112, RCP 122
Critical Care II ⁴	RCP 231	F			3	RCP 230
Elective	---				3	
Cluster E						
Medical Microbiology	BIO 232	F/S/SU			4	BIO 101 or BIO 111
Bioethics	IDS 215	S			3	Coreq-ENG 100 or approp place score
Medical Lectures IV	RCP 114	S			2	BIO 112, RCP 113
Clinical IV ^{5,6}	RCP 222	S			5	BIO 112, RCP 221
Pediatrics/Perinatology	RCP 243	S			2	BIO 112
Respiratory Care Seminar	RCP 245	S			2	BIO 112. Coreq-RCP 222
Total credits required					72	

The Degree:
Associate in Science

The Program:
Respiratory Care

The Next Step:
Graduates are eligible to take credentialing examinations offered by the National Board for Respiratory Care, Inc/ Apply for MA licensure with the MA.D.P.H.

Program Coordinator:
Lynda Nesbitt (508) 854-4398

lyndan@gcc.mass.edu

Admission Requirements:
Please see Admission process in the program introduction.

Program Footnotes:
To be eligible to remain in the Program, a student must achieve a grade of “C” or higher in all Respiratory Care (RCP) courses and in PHY 103, BIO 111, BIO 112 and BIO 232. In addition, the student must satisfy all course and Program requirements including regulations on conduct and attendance in order to remain in the Program. For more information, see Program introduction

CORI/SORI:
Required of all accepted students prior to beginning clinical experiences.

Technical Performance Standards:
Prior to application to this program, please review the Technical Performance Standards requirements on pages 165 - 167.

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RESPIRATORY CARE - Associate in Science

PROPOSED

Course Title	Course #	Offered	Plan to Take	Grade	Credits	Prerequisites
Cluster A						
Anatomy & Physiology I	BIO 111	F/S/SU			4	BIO 101 or AP Biology. Coreq-ENG 101
English Composition & Literature I	ENG 101	F/S/SU			3	ENG 100
Fundamentals of Respiratory Care I	RCP 103	F			2	Coreq-RCP 121
Medical Lectures I	RCP 111	F			3	
Clinical I ²	RCP 121	F			3	Coreq-RCP 103
Pharmacology ³	RCP 141	F			3	Coreq- RCP 111
Cluster B						
Anatomy & Physiology II	BIO 112	F/S/SU			4	BIO 111
English Composition & Literature II	ENG 102	F/S/SU			3	ENG 101
Physics for Respiratory Care	PHY 103	S			2	MAT 095
Fundamentals of Respiratory Care II	RCP 104	S			2	RCP 103, RCP 121. Coreq-RCP 122
Medical Lectures II	RCP 112	S			3	RCP 111
Clinical II	RCP 122	S			3	RCP 103, RCP 121, RCP 141. Coreq-RCP 104
Cluster C						
Critical Care I Laboratory	RCP 230	SU			1	BIO 112
Cluster D						
Introduction to Psychology or	PSY 101	F/S/SU				ENG 100 or approp place score
Psychology of Interpersonal Relations	PSY 118	F/S/SU			3	Coreq-ENG 100 or approp place score
Medical Lectures III ¹	RCP 113	F			3	BIO 112, RCP 112
Cardiopulmonary Technology	RCP 131	F			2	BIO 112
Clinical III	RCP 221	F			5	BIO 112, RCP 122
Critical Care II ⁴	RCP 231	F			3	RCP 230
Elective	---				3	
Cluster E						
Medical Microbiology	BIO 232	F/S/SU			4	BIO 101 or BIO 111
Bioethics	IDS 215	S			3	Coreq-ENG 100 or approp place score
Medical Lectures IV	RCP 114	S			3	BIO 112, RCP 113
Clinical IV ^{5,6}	RCP 222	S			5	BIO 112, RCP 221
Pediatric and Neonatal Respiratory Care	RCP 243	S			2	BIO 112
Respiratory Care Seminar	RCP 245	S			2	BIO 112. Coreq-RCP 222
Total credits required					74	

The Degree:
Associate in Science

The Program:
Respiratory Care

The Next Step:
Graduates are eligible to take credentialing examinations offered by the National Board for Respiratory Care, Inc/ Apply for MA licensure with the MA.D.P.H.

Program Coordinator:
Lynda Nesbitt (508) 854-4398

lyndan@gcc.mass.edu

Admission Requirements:
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CORI/SORI:
Required of all accepted students prior to beginning clinical experiences.

Technical Performance Standards:
Prior to application to this program, please review the Technical Performance Standards requirements on pages 165 - 167.

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- C. Re-evaluate the learning outcomes that you identified in Section II, Question 1-B. If appropriate, modify your list to reflect the revised curriculum and restate your learning outcomes. If there are no proposed changes to the learning outcomes go to question D below.**

Response:

No learning outcomes changes are proposed for the Respiratory Care Program.

- D. Take your list of learning outcomes and next to each one list all the primary courses that support that specific learning outcome.**

Response:

		General Education Competencies	
1	Reading Comprehension	Upon completion of the program, students will be able to understand, to analyze, and to evaluate readings from a variety of texts and to apply that learning to academic, personal, and professional contexts	ENG.101-102 Eng. Comp. Lit. I, II, PSY 101 Intro. to Psych or PSY 118 Psych of Interpersonal Relations; IDS 215 Bioethics; BIO 111-112, Anatomy and Physiology; BIO 232 Medical Microbiology; PHY 103 Physics for Resp. Care; RCP 103-104, Fundamentals of Resp. Care I, II; RCP 111-114 Med. Lect. I-IV; RCP 121, 122, 123, 124 Clinical I-IV; RCP 131, Cardiopulmonary Technology; RCP 141 Pharmacology; RCP 230, 232 Critical Care I-II; RCP 243 Pediatrics/Perinatology; RCP 245 Resp. Care Seminar
2	Effective Communication	Upon completion of the program, students will be able to effectively use the English language, writing and speaking with clarity, coherence, and persuasiveness.	ENG.101-102 Eng. Comp. and Lit. I, II; PSY 101 Intro. to Psych or PSY 118 Psych of Interpersonal Relations; IDS 215 Bioethics; BIO 111-112, Anatomy and Physiology; BIO 232 Medical Microbiology; PHY 103 Physics for Resp. Care; RCP 103-104, Fundamentals of Resp. Care I, II ; RCP 111-114 Med. Lect. I-IV; RCP 121, 122, 123, 124 Clinical I-IV; RCP 131, Cardiopulmonary Technology; RCP 141 Pharmacology; RCP 230, 232 Critical Care I-II; RCP 243 Pediatrics/Perinatology; RCP 245 Resp. Care Seminar

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3	Critical Thinking	Upon completion of the program, students will be able to think critically, independently, and creatively so that they can make informed and logical judgments of the arguments of others, arrive at reasoned and meaningful arguments and positions, and formulate and apply ideas to new contexts.	ENG.101-102 Eng. Comp. and Lit. I, II; PSY 101 Intro. to Psych or PSY 118 Psych of Interpersonal Relations; IDS 215 Bioethics;; PHY 103 Physics for Resp. Care; RCP 111-114 Med. Lect. I-IV; RCP 121, 122, 123, 124 Clinical I-IV; RCP 230, 232 Critical Care I-II; RCP 243 Pediatrics/Perinatology; RCP 245 Resp. Care Seminar
4	Quantitative Reasoning	Upon completion of the program, students will be able to comprehend and use quantitative concepts and method to interpret and to critically evaluate data and to effectively problem-solve in a variety of contexts demanding quantitative literacy	PHY 103 Physics for Respiratory Care; RCP 103-104, Fundamentals of Resp. Care I, II ; RCP 141 Pharmacology; RCP 131 Cardiopulmonary Technology; RCP 141 Pharmacology; RCP 245 Resp. Care Seminar; RCP 230, 232 Critical Care I-II
5	Information Literacy	Upon completion of the program students will be able to locate access, analyze, and utilize information that facilitates learning and critical inquiry and to adhere to the standard of academic honesty in their use of that information.	ENG.101-102 Eng. Comp. and Lit. I, II; PSY 101 Intro. to Psych or PSY 118 Psych of Interpersonal Relations; IDS 215 Bioethics; BIO 111-112, Anatomy and Physiology; BIO 232 Medical Microbiology; PHY 103 Physics for Resp. Care; RCP 103-104, Fundamentals of Resp. Care I, II ; RCP 111-114 Med. Lect. I-IV; RCP 121, 122, 123, 124 Clinical I-IV; RCP 131, Cardiopulmonary Technology; RCP 141 Pharmacology; RCP 230, 232 Critical Care I-II; RCP243Pediatrics/Perinatology RCP 245 Resp. Care Seminar
6	Diversity Competency	Upon completion of the program students will demonstrate the awareness, understanding, and respect necessary to live in a diverse world, as well as and ability to work cooperatively and effectively in multidisciplinary and diverse teams.	PSY 101 Intro. to Psych or PSY 118 Psych of Interpersonal Relations; IDS 215 Bioethics; RCP 121-124 Clinical I-IV; RCP 245 Respiratory Care Seminar

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		PROGRAM SPECIFIC LEARNING OUTCOMES	
7	Respiratory Care Professional Competency	Be a competent advanced-level graduate respiratory care practitioner	All RCP-prefixed courses
8	Respiratory Care Professional Competency	Demonstrate professional behaviors consistent with employer expectations of an advanced-level respiratory care practitioner	All RCP-prefixed courses
9	Respiratory Care Professional Competency	Demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to his/her role as an advanced-level respiratory care practitioner.	All RCP-prefixed courses
10	Respiratory Care Professional Competency	Demonstrate the technical/psychomotor skill necessary to fulfill his/her role as advanced-level respiratory care practitioner	All RCP-prefixed courses
11	Respiratory Care Professional Competency	Demonstrate the ability to successfully work as a healthcare team member, and to interact successfully with physicians and other health care professionals	All RCP-prefixed courses

E. Describe the rationale for the course selection and sequence in the revised program. A rationale of course sequence should be provided for the specific program related courses, the general education courses, electives, etc. Please explain how both the general education courses and the career/technical courses support the development of the learning outcomes.

Response:

This question is not applicable to the Respiratory Care Program. The basic curriculum and course sequence are not altered by the proposed changes.

F. Explain how the general education components are integrated within the department specific courses. Be sure to highlight any specific interdepartmental teaching efforts and other efforts designed to integrate the general education course with the career/technical courses.

Response:

The majority of applicants to Respiratory Care Program have completed most, if not all, of the general education courses prior to entering the program. For those who have not completed these courses, or have completed only some of them, the curriculum is designed/scheduled so as to permit inclusion of any required general education courses; e.g., Eng. 101-102, PSY 101 or PSY 118, IDS 215, etc. on a semester-to-semester basis: e.g., Eng. 101 Cluster A, first semester, year one; Eng. 102 Cluster B, second semester, year one; PSY 101 or PSY 118, Cluster D, first semester, year 2; IDS 215 Cluster E, second semester, year two.

G. Does the program structure provide students with at least one elective choice? If no, is it possible to revise the curriculum so that there is at least one elective? Please explain your response.

Response:

The Respiratory Care Program is structured so as to provide students with one elective choice in Cluster D of the curriculum.

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3. Student and Program Assessment (Review relevant data over last three year period.)

Student Statistical Data

A. What has been the incoming students’ average course placements based on QCC placement tests for each of the last three years?

Response:

According to data provided by the QCC Office of IR, the math assessment test placement scores of Respiratory Care Program students, a high majority of them place into developmental math. In fact, between 2005 and 2007 the number of students who tested into MAT 090 increased from 28.57 to 55.56%. However, during this same time period, there was a significant increase in the number of students who tested into MAT 100 or higher. In 2005, 14.29% of students placed into MAT 100 or higher, but by 2006 that number increased to 15% and by 2007 it went up to 28.87%. The table below provides detailed information by course number.

Respiratory Care: Course Placements from Math Assessment Tests						
	2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
MAT 090	6	28.57%	8	40.00%	10	55.56%
MAT 095	7	33.33%	5	25.00%	3	16.67%
MAT 099	5	23.81%	4	20.00%		0.00%
MAT 1100/111/121/122	3	14.29%	2	10.00%	3	16.67%
MAT 123			1	5.00%	2	11.11%
MAT 124						
MAT 233						
Total	21	100.00%	20	100.00%	18	100.00%

According to data provided by the QCC Office of IR, the English assessment test placement scores of Respiratory Care Program students have decreased considerably from 2005 to 2007. In 2005, 33.33% of students placed into development English or ESL/ABE while 66.66% placed in to either ENG 100 or ENG 101. In 2006 the number of students who tested into ENG 100 or ENG 101 decreased to 50% and by 2007 that figure went down to 46.16%. The table below provides detailed information by course number.

Respiratory Care: Course Placements from English Assessment Tests						
	2005		2006		2007	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
ENG 090	1	8.33%	4	15.38%	3	11.54%
ENG 091			3	11.54%	3	11.54%
ENG 095			2	7.69%	3	11.54%
ENG 096	3	25.00%	3	11.54%	4	15.38%
ENG 100	7	58.33%	10	38.46%	9	34.62%
ENG 101	1	8.33%	3	11.54%	3	11.54%
ESL/ABE			1	3.85%	1	3.85%
Total	12	100.00%	26	100.00%	26	100.00%

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B. Please provide detailed tables showing the following measures of student success for each of the last three years.

Response:

- **Students’ average cumulative GPAs**

Respiratory Care Program students’ average cumulative GPAs between 2005 and 2007 ranged from a high of 2.97 in 2005 to a low of 2.90 in 2007 as seen in the table below.

Respiratory Care Cumulative GPA			
	2005	2006	2007
Number	25	25	27
Average	2.97	2.91	2.90

(Source: QCC Office of Institutional Research)

- **Graduates’ average cumulative GPAs**

Respiratory Care Program graduates’ average cumulative GPAs between 2005 and 2007 ranged from a high of 3.46 in 2005 to a low of 3.19 in 2006 as seen in the table below.

Respiratory Care Cumulative GPA Statistics for Graduates			
	2005	2006	2007
Number	5	9	5
Average	3.46	3.19	3.26

(Source: QCC Office of Institutional Research)

- **Students’ pass rates on professional exams if required to obtain certification or licensure:**

Class of 2005: five grads: 100%

Class of 2006: nine grads: 100%

Class of 2007: five grads: 100%

(Source: NBRC: School Summary Report at:

https://www.nbrc.org/reports/rwservlet?annual_school_sum&p_session_id=208866&p_school_code=200037&desformat=PDF)

C. If relevant, how can the program best address courses that keep students from succeeding in the program?

Response:

Students who do not succeed in the Respiratory Care Program for academic reasons typically fail more than one core professional course and this typically in the first semester of the freshman year. Such students have traditionally been those who lack demonstrated aptitude for sciences/math, and/or have achieved minimally passing grades - often after one or more attempts - on prerequisite courses prior to admission. It is anticipated that the revised admissions process/requirements, effective Oct., 2007, will help to address these issues.

D. Indicate the number of students who have transferred to a four-year program, if applicable. To which colleges and universities have students transferred?

Response:

Data is not currently available.

E. What have been the job placement rates for program graduates for each of the last three years, if applicable?

Response:

Class of 2005: five Respiratory Care Program graduates; of those, 100% found employment in respiratory care.

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Class of 2006: nine Respiratory Care Program graduates; of those, 100% found employment in respiratory care.
 Class of 2007: five Respiratory Care Program graduates; of those, 100% found employment in respiratory care.
 (Source: Employer Surveys of Graduate Job Performance, and Graduate Surveys, Classes of 2005-2007)

F. Track the average earnings of program graduates for each year of the three years immediately following graduation.

Response:

Average earning data not available at this time. The QCC Office of Institutional Research will provide graduate data starting in 2009.

Program Statistical Data

G. Provide a summary of the program’s enrollment trends over the last three years.

Response:

Data provided by the QCC Office of IR indicates that the majority of students enrolled in the Respiratory Care Program during the period of 2005-2007 self-identified as White/Non Hispanic.

RACE/ETHNICITY: Respiratory Care Enrolled Students						
RACE/ETHNICITY	2005		2006		2007	
	Number	Percent	Number	Percent	Number	Percent
American Indian/Alaskan			1	4.00%		
Asian/Pacific Islander	1	4.00%				
Black/Non-Hispanic	1	4.00%	1	4.00%	3	11.11%
Hispanic/Puerto Rican	3	12.00%	3	12.00%		
Non Resident Alien	1	4.00%				
Not Reported	1	4.00%				
Other					1	3.70%
White/Non Hispanic	18	72.00%	20	80.00%	23	85.19%
Total	25	100.00%	25	100.00%	27	100.00%

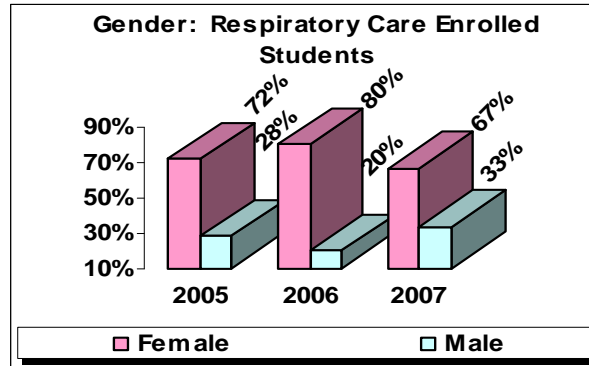
(Source: QCC Office of Institutional Research)

Data provided by the QCC Office of IR indicates that the majority of students enrolled in the Program during the period of 2005-2007 were female:

GENDER: Respiratory Care Enrolled Students						
	2005		2006		2007	
	Number	Percent	Number	Percent	Number	Percent
Female	18	72.00%	20	80.00%	18	66.67%
Male	7	28.00%	5	20.00%	9	33.33%
Total	25	100.00%	25	100.00%	27	100.00%

(Source: QCC Office of Institutional Research)

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(Source: QCC Office of Institutional Research)

Data provided by the QCC Office of IR indicates that the average age of students enrolled in the Respiratory Care Program decreased from 37.72 in 2005 to 29.11 in 2007. Additionally, in 2005, 28% of enrolled students were between 17-39 years; this figure increased to 68% in 2006. In 2007, 66.96%, of students were between 17-29 years of age.

Year	Average Age
2005	37.72
2006	30.08
2007	29.11

(Source: QCC Office of Institutional Research)

	2005		2006		2007	
	Number	Percent	Number	Percent	Number	Percent
17 TO 22	2	8.00%	8	32.00%	6	22.22%
23 TO 29	5	20.00%	9	36.00%	11	40.74%
30 TO 39	8	32.00%	3	12.00%	6	22.22%
40 TO 49	5	20.00%	3	12.00%	3	11.11%
50 TO 64	5	20.00%	2	8.00%	1	3.70%
Total	25	100.00%	25	100.00%	27	100.00%

(Source: QCC Office of Institutional Research)

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H. Provide a summary of program retention patterns over the last three-five years.

Response:

During the period of fall of 2004 - fall of 2007, the Respiratory Care Program retention consistently remained between 50% - 56% as seen in the following table.

Respiratory Care Fall to Fall Retention Rates				
		Not Retained	Retained	Not Retained Transfers
Fall 2004 to Fall 2005	Count	11	11	2/11
	Percent	50.0%	50.0%	18.2%
Fall 2005 to Fall 2006	Count	7	9	0/7
	Percent	43.8%	56.3%	0.0%
Fall 2006 to Fall 2007	Count	10	10	2/10
	Percent	50.0%	50.0%	20.0%

(Source: QCC Office of Institutional Research)

I. Provide data on students in General Studies who have designated your program as a second major

Response:

Data is not available at this time.

J. Determine the number of semesters it takes for students to complete the program.

Response:

The information below is based solely on first-time full-time degree seeking students who enrolled in the Respiratory Care Program. Four such students took an average of 4.25 years to graduate.

Respiratory Care: Average Degree Completion Time		2001-2007
Average Years to Completion	Number of Students	
4	3	
5	1	

(Source: QCC Office of Institutional Research)

K. Define indicators of program quality. Please describe how program effectiveness is measured. Specifically, list strategies that are employed to determine if the program is successful in meeting its stated goals. For example, do program faculty review relevant program statistics regarding enrollment, retention, and graduation? Does the program monitor student success in passing required licensure examinations or placement upon graduation? Has the program conducted any type of a student or employer satisfaction survey to determine if the program is developing the essential skills for the particular field of employment?

Response:

Program effectiveness is measured in a variety of ways, all of which have been extensively discussed in previous sections of this document. Indicators used to define Respiratory Care Program quality include:

- Employer Surveys of Graduate Job Performance
- Graduate Surveys
- Student Program Resource Surveys
- Personnel Program Resource Surveys
- Ongoing faculty review of graduate credentialing success data/ content-specific performance by graduates on credentialing exams

(Source: NBRC Annual School Summary Report at: <http://www.nbrc.org>)

Compliance with cut scores/thresholds as stipulated on: CoARC Outcomes Assessment Thresholds

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4. Relevance of Instructional Methodologies, Assessment Strategies and Program Credentials

A. Summarize the current INSTRUCTIONAL METHODOLOGIES utilized in the program. What are the strengths and challenges of these methodologies?

Response:

The Respiratory Care Program utilizes a variety of instructional methodologies to promote/enhance student learning.

The primary methodologies employed to convey information in the classroom are as follows:

- Faculty or guest lecture/lecture with discussion
- student independent research and writing
- case study analysis
- instructional software

It is intended that laboratory time be utilized primarily to provide students with opportunity to develop the skills required to become safe and competent practitioners in the clinical setting; therefore, laboratory instruction emphasizes integration of theory with acquisition of the psychomotor skills required to utilize equipment and to perform therapeutic procedures safely and effectively when the student subsequently enters in to the patient care environment.

The primary methodology employed in the laboratory/clinical settings is direct instruction, which is conducted in the following manner:

- Demonstration of technical skills by the instructor (student observes)
- Student performance of technical skills (instructor observes, coaches, and corrects as needed; peers observe)
- Observational assessment by student (student is encouraged to act as evaluator of peer performance)
- Laboratory practice/ subsequent independent performance (clinical)

As a part of the total professional educational experience, students are also required to do the following:

- Attend relevant conferences such as the MA Society for Respiratory Care, Inc. annual meeting, physician lectures/ bedside rounds, and in-service presentations
- Actively participate in knowledge and skills-based programs (e.g., Advanced Cardiac Life Support certification)

Any of the various instructional approaches-from case analysis/discussion, to task demonstration/performance, to the use of computer assisted instructional software/computer simulations- may be utilized in these settings/activities.

Ongoing oral exchange between instructor and student, typically in a question and answer or question and discussion format, supplements all of the instructional methodologies employed by the program, whatever the setting. Oral exchange is intended to do the following:

- Ascertain student understanding of theoretical concepts, as well as of any performance elements required
- Encourage student application of theory to practice
- Stimulate critical thinking on the part of the student.

Critical thinking skills are also developed through the following:

- Assignment of client case presentations
- Analysis of practice-oriented situational scenarios in-class and in clinical
- Through the completion of "clinical simulation" software

Additionally, student communication skills are developed through the following:

- Preparation/oral presentation of case study reports and research papers

Active involvement in the profession and the community is fostered through the following:

- Completion of a service- related project as a component of RCP 245 Respiratory Care Seminar.

(See course description at: <https://zeus.qcc.mass.edu:9040/academic/catalog/UG08/RCP.html#RCP231>)

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General challenges associated with these methodologies include: Faculty or guest lecture: Proficient oral skills on the part of lecturers/guest speakers are necessary; learning is passive/difficult to gauge; communication is one-way unless active discussion is fostered; student engagement with the learning process is largely self-motivated; this instructional platform often requires the support/creation or acquisition of visual aids, e.g., PowerPoint or other, to be truly effective; lecture with discussion: typically limited by time constraints and the amount of material that must be covered; ideally, students should all actively/equally participate; instructor must moderate, not dominate; student independent research/writing, case study analysis: students may not possess adequate language fluency, writing or basic research skills necessary to produce a quality paper or case analysis; instructional software; the quality of program content/instructional experience available can vary widely, depending on author; additionally, some students may lack a familiarity with computers sufficient to enable productive learning; direct instruction- components are time consuming; the instructor must rehearse prior to the demonstration, and perform the procedure perfectly upon demonstration; student oral presentations: time consuming; time available is limited by class size; instructor must provide clear, concise directions/structure for presentations; participation in knowledge and skills-based programs: must be structured so as to duplicate reality/clinical practice as closely as possible; time consuming to conduct; typically require elaborate preparation/set up on the part of presenter(s).

- B. Provide recommendations for additional methodologies that would enhance students’ learning. More specifically, are there additional ways in which instructional technology could enhance students’ learning? Options for distance learning? Computer-based instruction? Experiential learning? Please explain your answer, and include how the College might support these efforts.**

Response:

Distance Learning:

Many of the courses required for the AS degree in respiratory care are currently offered in an on-line format, e.g., BIO 111; PSY 101; ENG 101; BIO 140, etc.; however, offering components of the professional curriculum via distance education (or the development of a “distributed learning option” for the *entire* professional curriculum) would, require a significant investment of faculty time which is, unfortunately, not currently available. In addition to the development of Respiratory Care Program courses in a distance learning format, CoARC /CAAHEP accreditation Standards and Guidelines require that any program incorporating “multiple program designs” must: *“use program resource and outcome assessment to demonstrate that all such program variations result in equivalent graduate outcomes. The program should demonstrate that the teaching methods are valid for all students, that the evaluation systems are equivalent, and that the graduates of all program designs are equally competent. An example of multiple program design is the addition of distance learning to traditional instructional methods.”* Compliance with this requirement alone would require that faculty devote a significant amount of time to data collection and analysis. As the Respiratory Care Program currently employs only two full-time faculty who teach the majority of the professional curriculum in addition to holding coordinator responsibilities and, in the case of the program director, teaching courses within another division, it is unrealistic to seriously consider offering a distance learning option for professional courses unless/until additional staff are added. (Source: www.caahep.org/documents/ForProgramDirectors/RT_Standards.pdf)

Computer-based instruction:

Computer-based instruction is currently utilized throughout the curriculum, e.g., clinical scenario simulations on DVD.

Experiential learning:

Students currently complete a minimum of 1,000 hours of supervised clinical time in a variety of healthcare settings: hospitals/clinics/home-care companies, etc. No other experiential learning method(s) are sanctioned for CAAHEP/CoARC accredited programs.

Teaching methodologies:

Teaching methodologies that would enhance student learning include the expanded use of visual materials in the classroom, e.g., PowerPoint; additionally, the ability to provide students with more realistic laboratory experiences via the acquisition of technologically advanced products such as the “SimMan” mannequin which incorporates “software and an interactive” technology... allowing learners to practice the ...treatment of patients...during realistic patient care scenarios.” (Source: www.laerdal.com)

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C. Using the program objectives as the focus, please provide a detailed ASSESSMENT plan, in chart form, outlining the methodologies used for on-going student assessment and final outcome assessment. List all assessment methodologies utilized throughout the program.

Please consider, but do not feel limited to, the following strategies.

- Student work samples
- Student portfolios
- Capstone projects
- Laboratory activities
- Presentations
- Panel discussions
- Seminars or interdisciplinary projects
- Juried review of students projects
- Performance on case study / problem

Response:

The methodologies used for on-going student assessment and final outcome assessment employed by the Respiratory Care Program have four specific and interrelated purposes: (1) to improve student learning; (2) to improve teaching strategies; (3). to document successes and identify opportunities for improvement; and (4) to provide evidence for programmatic effectiveness. Methods used to conduct student assessment include:

<p><u>COURSE LEVEL</u> <u>ASSESSMENT</u></p>	<p><u>DIRECT MEASURE METHODS</u> Standardized tests (e.g. NBRC Secure Self-Assessment Examinations) Written Term Papers/Reports Examinations Formative/summative (individual) clinical and laboratory performance evaluations conducted at mid-semester and again at the conclusion of the semester/clinical rotation On-site Observations of clinical/laboratory performance by the Director of Clinical Education Class participation Case study analysis/”critical thinking” questions Simulations (Laboratory and Software) Behavioral observations (classroom/lab/clinical affective assessment) Grades based on explicit published criteria related to clear learning goals and objectives Student Program Resource Surveys</p>
<p><u>PROGRAM LEVEL</u> <u>ASSESSMENT</u></p>	<p>Pass rates/scores on national credentialing examinations Employer Surveys Graduate Surveys Graduate Employment/ Placement Rates Compliance with cut scores/thresholds as stipulated on: CoARC Outcomes Assessment Thresholds (Source: CoARC Outcomes Assessment Thresholds, 03/02/2007. http://www.coarc.com/thresholds.htm.)</p>

D. Has the program been evaluated by an EXTERNAL ACCREDITATION organization within the last five years? The purpose here is to identify all available external validation opportunities. For the most part, these opportunities will be voluntary accreditations. That is, they are not necessarily required in order to offer the program of study, but would provide QCC with an added mark of excellence if acquired. Attach all information concerning potential program accreditation opportunities to pursue, including name of the professional organization, full contact information and description of the particular accreditation and the labor market advantage gained by program accreditation.

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Response:

The Respiratory Care Program was reaccredited in 2007 by the Commission on Accreditation for Respiratory Care/Commission on Accreditation for Allied Health Education Programs.

“Programmatic (or specialized) accreditation examines specific schools or programs within an educational institution. The standards by which these programs are measured have generally been developed by the professionals involved in each discipline and are intended to reflect what a person needs to know and be able to do to function successfully within that profession... Accreditation in the health-related disciplines... serves a very important public interest. Along with certification and licensure, accreditation is a tool intended to help assure a well-prepared and qualified workforce providing health care services.”

(Source: “About Accreditation” at: <http://www.caahep.org>)

- E. If you responded yes to the previous question, please provide name of organization and date of last accreditation review. Did the program meet all of the accreditation requirements? If no, please explain. Attach the summary of the accrediting team’s recommendations.**

Response:

The Respiratory Care Program was reaccredited in 2007 by the Commission on Accreditation for Respiratory Care/Commission on Accreditation for Allied Health Education Programs. Contact information: CoARC: 1248 Harwood Road, Bedford, TX 76021-4244; Ph: 817-283-2835; Fax: 817-354-8519; <http://www.coarc.com>; CAAHEP: 1361 Park Street, Clearwater, FL 33756; Ph: 727-210-2350; Fax: 727-210-2354.

The Respiratory Care Program met all major accreditation requirements; however, the Site Visit team did note three issues which would need to be addressed prior to issuance of full reaccreditation status: “Accreditation with Progress Report”: the inadequacy of the then-in-use laboratory; a minor discrepancy in statistics provided by the NBRC and those provided by the Program’s Annual Report; and a need to demonstrate improved correlation between the lab component of RCP 111-112, Fundamentals of Respiratory Care I, II with the corequisite clinical courses, RCP 121-122, Clinical I, II.

A copy of the CoARC Accreditation Site Visit Report as well as the progress documentation attesting to remedy of the issues noted in the Site Visit Report are available in the Respiratory Care Program coordinator’s office for review.

- F. If the program has not been evaluated externally, list any appropriate professional accreditation or licensure for this program that the College should pursue. (e.g., industry certifications, professional associations, etc.) Please note that federal and state funding agencies strongly encourage program accreditation as a measure of performance accountability.**

Response:

This question is not applicable to the Respiratory Care Program.

- G. What changes, if any, might need to be considered to foster enhanced program quality? Please use the flowing list of suggested items as a starting point for brainstorming potential program adjustments. Provide both a description and an in-depth rationale for any proposed changes. Do NOT limit your response based on perceived feasibility, resource allocations, or other constraining factors. Offer recommendations for program enhancement that will align the program directly with labor market need and will integrate the most effective instructional and assessment methodologies possible.**

Consider the following, but you need not limit your response:

- **change in admission requirements**
- **inclusion of an internship or other work-based learning experience**
- **introduction of 1 or 2 electives to allow students to self-select learning opportunities**
- **development of a capstone course to synthesize the learning experience**
- **varied instructional methodologies**
- **enhanced assessment of student competencies**

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- **better integration of technology applications**
- **specific instructional aides/software etc.**
- **more coordination of faculty efforts, including the possibility of more full-time faculty**
- **attainment of program accreditation, certification, or licensure**

Response:

Recommendations to enhance Respiratory Care Program quality include:

- A revised admissions process
The admissions process for the health programs has recently been revised as of October, 2007, as have specific programmatic admissions requirements.
- Addition of a third full-time faculty member. The rationale for this recommendation appears in Section II, 6B.
- Acquisition of patient-care simulation equipment. Please refer to Section III, Part 1-F of this document.

It must be noted that the Respiratory Care Program currently holds a full 10 year accreditation from the Commission on Accreditation for Respiratory Care, which provides evidence of the essential quality of the education provided. Additionally, the Respiratory Care Program boasts a 100% graduate employment rate, as well as a 100% “satisfaction with graduate/employee performance” rate as indicated by employer survey results –both of which indicate alignment of the Respiratory Care Program with labor market need.

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5. Program Growth Opportunities

- A. Competitive forces within a global economy frequently require the ability to read and correct for market trends in a very timely manner. Employers are continuing to search for ways to minimize the impact of these shifts on their industries. One such compensating strategy is the move toward “core career competencies”. Employees with strong foundation skills can more quickly “retool” their career/technical skills with minimal retraining/education.**

In light of the above statement, examine existing programs at QCC that are similar in nature to the ones under review. In your opinion, would it be beneficial to develop a common core curriculum among related career programs? (E.g. computer education, business, administrative support, electronics, etc.) Please explain your answer.

Response:

The health careers programs are unique in that the core curriculum for each program is typically recommended/mandated by an external accreditation/regulatory agency or group; therefore, the development of a common "core" curriculum beyond that which already does not appear to be feasible as exists. Courses such as Anatomy and Physiology and shared general education requirements- such as English 101 and 102 -are required by the majority of health programs. The development of a preparatory “pre-health” curriculum/ degree program is currently under way within the College, however; it is anticipated that this program will be designed with emphasis upon common subject areas, such as biology, typically required for entry into a health career program.

- B. Describe, in detail, all potential areas for program growth. Refer back to the response to Section I, Question 6. Opportunities for Program Expansion. While this may seem repetitive, you may have additional ideas since completing a thorough review of the curriculum and instructional methodologies. Include, but do not limit your response to the following:**

Career Ladder Potential

- **New Degree or Certificate Options**
- **Professional/Continuing Education Opportunities**
- **Professional Recertification Preparation/Testing**
- **Flexible Delivery Options**
- **Enhanced Instructional Methodologies**
- **Improved Assessment of Student Competencies**
- **Distance Learning Course Development**

Response:

The primary direction into which the Respiratory Care Program might evolve is the development of a Polysomnography Technology Certificate Option. A certificate option was developed and submitted to QCC College administration by the Respiratory Care Program coordinator in 2002, but no action toward finalization of course /certificate approval was taken.

“CoARC...will allow respiratory therapy programs to apply for an optional specialized accreditation status in Polysomnographic Technology. This optional status will result in two major outcomes: (1) it will facilitate better trained and educated respiratory therapists, and (2) it will allow graduates of the program to be eligible to take the Comprehensive Registry Exam in Polysomnographic Technology (RPSGT) with only six months of work-related experience as opposed to twelve months under the current eligibility criteria.” (Source: “Respiratory Care: Polysomnography Certificate Curriculum Guide” published by: The Committee on Accreditation for Respiratory Care in collaboration with The American Association for Respiratory Care. <http://www.coarc.com/links.htm>)

A secondary direction into which the Respiratory Care Program might evolve is exploration of the feasibility of offering select components of the curriculum via distance education. This would, however, require a significant investment of faculty time which is currently not available. In addition to development of courses in a distance learning format, CoARC /CAAHEP accreditation Standards and Guidelines require that any program

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incorporating “multiple program designs” must: *“use program resource and outcome assessment to demonstrate that all such program variations result in equivalent graduate outcomes. The program should demonstrate that the teaching methods are valid for all students, that the evaluation systems are equivalent, and that the graduates of all program designs are equally competent. An example of multiple program design is the addition of distance learning to traditional instructional methods.”*

(Source: www.caahep.org/documents/ForProgramDirectors/RT_Standards.pdf)

The Respiratory Care Program currently employs only two full-time faculty who teach the majority of the professional curriculum in addition to holding coordinator responsibilities; therefore, it is unrealistic to seriously consider this possibility unless/until the staffing level is adjusted.

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6. Faculty

- A. What has been the ratio between full-time and part-time faculty within this program over the last five years? In response to this question, please consider the number of full-time, part-time, and FTE instructional faculty members teaching in the department. How many full-time faculty members have a primary commitment to the program?**

Response:

Part-time Respiratory Care Program faculty have predominated. Please see the following chart.
Two full-time faculty members have a primary commitment to the Respiratory Care Program.

Respiratory Care Part-Time/Full-Time Faculty Ratios by Day and DCE Categories					
2005					
		Proportion of Day Sections Taught by Part & Full-time Faculty		Proportion of DCE Sections Taught by Part & Full-time Faculty	
		Part-time	Full-time	Part-time	Full-time
RCP 103	Count		1		
	Percent		100.0%		
RCP 111	Count		1		
	Percent		100.0%		
RCP 113	Count		1		
	Percent		100.0%		
RCP 121	Count	2			
	Percent	100.0%			
RCP 131	Count	1			
	Percent	100.0%			
RCP 141	Count		1		
	Percent		100.0%		
RCP 221	Count	4			
	Percent	100.0%			
RCP 231	Count		1		
	Percent		100.0%		
Total	Count	7	5		
	Percent	58.3%	41.7%	0.0%	0.0%

Respiratory Care Part-Time/Full-Time Faculty Ratios by Day and DCE Categories					
2006					
		Proportion of Day Sections Taught by Part & Full-time Faculty		Proportion of DCE Sections Taught by Part & Full-time Faculty	
		Part-time	Full-time	Part-time	Full-time
RCP 103	Count		1		
	Percent		100.0%		
RCP 111	Count		1		
	Percent		100.0%		

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RCP 113	Count		1		
	Percent		100.0%		
RCP 121	Count	4			
	Percent	100.0%			
RCP 131	Count	1			
	Percent	100.0%			
RCP 141	Count	1	1		
	Percent	50.0%	50.0%		
RCP 221	Count	2			
	Percent	100.0%			
RCP 231	Count	2			
	Percent	100.0%			
Total	Count	10	4		
	Percent	71.4%	28.6%	0.0%	0.0%
2007					
		Proportion of Day Sections Taught by Part & Full-time Faculty		Proportion of DCE Sections Taught by Part & Full-time Faculty	
		Part-time	Full-time	Part-time	Full-time
RCP 103	Count		1		
	Percent		100.0%		
RCP 111	Count		1		
	Percent		100.0%		
RCP 113	Count		1		
	Percent		100.0%		
RCP 121	Count	4			
	Percent	100.0%			
RCP 131	Count	1			
	Percent	100.0%			
RCP 141	Count		1		
	Percent		100.0%		
RCP 221	Count	3			
	Percent	100.0%			
RCP 231	Count		1		
	Percent		100.0%		
Total	Count	8	5		
	Percent	61.5%	38.5%	0.0%	0.0%

Respiratory Care Faculty Primary Status						
	2005		2006		2007	
	Count	Percent	Count	Percent	Count	Percent
Part Time	6	75.0%	7	77.8%	8	80.0%
Full-time	2	25.0%	2	22.2%	2	20.0%
Total	8	100.0%	9	100.0%	10	100.0%

(Source: QCC Office of Institutional Research)

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- B. Is the current full-time and adjunct faculty able to adequately address the instructional content needs of all courses, both general and specialty, in the program? In response to this question, consider ALL courses in the program. Do the current faculty members (full-time or adjunct) have the specific expertise necessary to teach all of these courses? Are there any particular courses that are more difficult to match faculty members with? If so, please explain.**

Response:

The two full-time Respiratory Care Program faculty are seriously challenged by the demands of their current workloads, which include: meeting the needs of students currently enrolled in the Respiratory Care Program; teaching core professional courses; assuming total responsibility for program coordination and clinical coordination; organizing and conducting faculty meetings, Advisory Board meetings, etc; complying with the various mandates of external accreditation such as annual report preparation; recruitment/orientation/mentoring clinical/lab and other adjunct faculty; assisting adjuncts in the student evaluation process; maintaining required programmatic/student documentation; participating in ongoing student advisement; distributing/analyzing/maintaining CoARC- required surveys/paperwork, data, etc; attending a variety of college meetings and participating in governance activities; responding to requests from the College/the community for assistance with a variety of programs, e.g., health & career fairs; continuously updating/revising/rewriting courses taught in order to remain current with changes in the dynamic areas of health science/healthcare/the profession; performing College service activities as contractually mandated. The foregoing is, by no means, an exhaustive list of faculty responsibilities. As these activities are all essentially “mandatory”, there is little to no time available for creative reflection on teaching/learning, participation in professional development activities, keeping the Respiratory Care Program truly current as opposed to continuously “catching up”, or actively pursuing program expansion possibilities, e.g., development of a polysomnography certificate option.

The addition of a third, full-time faculty member would significantly ease the workload of the two current full-time faculty, permit these faculty members to devote time to pursuit of continuing education/ program expansion, and help to address the ongoing and ever problematic issue of recruitment of qualified adjuncts to teach laboratory/clinical sections of the curriculum. Ideally, the additional full-time faculty member would assume the role of full-time laboratory coordinator /instructor, with secondary responsibility for approximately 24-32 hours/week of clinical instruction in an affiliate institution. The presence of an additional full-time faculty member would significantly improve the ability of the Respiratory Care Program to provide a consistently high quality laboratory and clinical experience, as well as help to insure full coverage of all laboratory courses - and at least partial coverage of clinical courses - from semester to semester. Additionally, if the full-time staffing level were increased, it would be feasible to investigate the possibility of increasing the number of students admitted to the freshman class each year from 20 to 25. It must, however, be noted that increasing the number of students admitted to the freshman class may create some clinical placement issues as the number of clinical placement sites available is currently limited. Were numbers to be increased, Respiratory Care Program faculty would need to look well beyond the College’s service area for additional healthcare facilities with which to affiliate.

Current Respiratory Care Program faculty members, full-time and/or adjunct, do possess the expertise required to teach the professional courses; however, as noted, it is very difficult to insure that that *is* the case from semester to semester. There is a constant turnover of adjunct faculty, especially within clinical/laboratory courses-and it is virtually impossible to locate adjuncts with the requisite professional experience/ credentials /teaching experience, and a master’s degree as is preferred for faculty.

Non-professional components of the curriculum, e.g., English, Anatomy and Physiology, Psychology, etc. are typically taught by faculty from the appropriate division/area within the College.

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

- C. Is institutional support for upgrading faculty credentials required? If yes, please explain the kind of upgrade required and approximate cost associated with the upgrade? Upgrading faculty credentials may involve a wide variety of activities. For example, in technical programs, there may be certain industry certifications or other professional designations that, if acquired, could position the College to offer advanced coursework or specialized training courses. Please provide suggestions on how the Center for Academic Excellence can be utilized to support professional development in your program.**

If possible, identify all potential vendors and the costs associated with the training or education upgrades identified.

If you are unsure as to the specific kind of upgrade, list all areas of specialized competence that would benefit the program. Provide a rationale for all areas listed.

Response:

The acquisition of training/credentialing in polysomnography by the Respiratory Care Program coordinator would benefit the Respiratory Care Program, and would ideally position the Respiratory Care Program to offer a certificate option/degree program in polysomnography. The Atlanta School of Sleep Medicine and Polysomnography “offers a comprehensive program of study designed for allied healthcare professionals who are new to sleep medicine or those who may benefit from a formalized course of study in the field. The School’s A-STEP curriculum has been developed by the American Academy of Sleep Medicine as a comprehensive introduction to sleep technology for the novice technologist. Beginning in 2010, the Board of Registered Polysomnographic Technologists (BRPT) will require completion of an A-STEP course to take the national certification examination and earn the RPSGT credential.” The current cost of the Respiratory Care Program stands at \$3200 for the AASM A-Step Introductory Course, plus an additional \$420.00 for the AASM A-Step Self-Study Modules. This does not include airfare, registration, lodging, etc.
(Source: See: www.sleepschool.com/technologist.aspx)

- D. Is the current faculty able to adequately address the non-instructional responsibilities and needs of the program? (e.g. developing articulation agreements, community connections, K-12 outreach, new degree and certificate program development, resource development to support program growth and enhancement, etc.)**

Response:

No, the current workload of the two Respiratory Care Program full-time faculty members does not permit them to adequately address the non-instructional responsibilities and needs of the program. Please refer to Section II, part B, above.

- E. Describe how adjunct faculty is integrated into the existing program’s operation. If possible, provide concrete examples of successful strategies or suggest some approaches that the program could employ in the coming semesters to insure a better integration of the adjunct faculty members.**

Response:

Efforts are made to include adjunct faculty in all operational aspects of the Respiratory Care Program. Inclusion is achieved primarily through formal instructor meetings, scheduled several times each semester, which include all full-time and adjunct staff. Additionally, full and part time faculty meet once per semester in order to specifically review the current curriculum and determine what, if any, modifications need to be made in order to remain in compliance with the requirements established by CoARC/CAAHEP, and reflected in the NBRC Content Matrices. In addition to formal faculty meetings, clinical site visits are made approximately bi-weekly throughout the semester by the Respiratory Care Program Director of Clinical Education; this practice enables key personnel to remain in personal contact with adjuncts who may, realistically, have little opportunity to visit the College given that all are employed as full-time respiratory therapists for local healthcare institutions in addition to their instructional roles for QCC.

A formal adjunct clinical faculty orientation is also scheduled by the Director of Clinical Education at the beginning of each semester-the purpose of which is to familiarize the adjunct staff as to Respiratory Care Program policies and procedures/paperwork/College policies, etc. Office space/equipment /computer with

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

Internet access, phone, etc are available for use by adjuncts in the Respiratory Care Program coordinator’s office, room 357 A, as well as in College-designated open adjunct/faculty areas. Adjuncts are assigned email and voice mail, should they wish to utilize either service. Additionally, Respiratory Care Program key personnel provide adjunct faculty with information relative to the use of the College Print Shop, the location/acquisition of media, and the location/availability of other College resources and services.

Lastly, adjuncts are informed of, and invited to attend, College-related events such as governance, all-college programs, division meetings, graduation, etc, as well as all Program-specific activities such as new student orientation, pinning ceremony, graduation dinner, etc. It is unclear as to what additional approaches might be employed to “ensure better integration of adjunct faculty members”. As has been previously noted, the majority of adjuncts employed by the Respiratory Care Program typically work full-time at healthcare institutions, in addition to instructing for QCC; therefore, their ability/desire to participate in additional Program/College related activities such as workshops, orientations, etc is, at best, quite limited.

F. Should the College employ additional full or part-time faculty in this discipline? Provide a detailed rationale. Base your answer to this question on your response to 6A-6D

Response:

Yes, the College should employ an additional full-time faculty member in the Respiratory Care Program. Please refer to 6B, above for the rationale.

G Describe how all faculty members contribute to curriculum development and overall program cohesiveness. Do ALL faculty members, both full and part-time have an opportunity to contribute to curriculum development? Please suggest additional strategies to strengthen all faculty involvement in curriculum development and overall program evaluation.

Response:

Full and part time Respiratory Care Program faculty meet at least once per semester in order to specifically review the current curriculum and determine what, if any, modifications need to be made in order to remain current with the content reflected in the NBRC Content Matrices and in compliance with the requirements established by CoARC/CAAHEP. Additionally, both full and part-time faculty complete a variety of CoARC-designed and mandated surveys each semester. These instruments are used to obtain faculty evaluative input, and the data compiled is intended to “aid the program in an ongoing process of program improvement”. The Respiratory Care Program must also maintain documentation of on-going evaluation. (Source: http://www.coarc.com/eval_instruments_handbook.htm)

H Describe the current level of program support staff, including professional staff. Carefully consider all the facets of program management and suggest an alternative configuration of support staffing to meet the need. Is there a way in which this program may share support of functions with a related program? Please include any other information pertaining to faculty and staff requirements that might be helpful to this review.

Response:

Currently, there is no professional support staff dedicated solely to the Respiratory Care Program. Assistance with secretarial tasks is occasionally provided by the staff assistant of the Instructional Dean. However, such assistance is available on a workload permitting basis only, which oftentimes results in some delay in getting Respiratory Care Program materials processed, distributed, returned, etc. To function optimally, the Respiratory Care Program requires the assistance of a dedicated secretary/administrative assistant on at least a half-time basis. The workload of the two full-time faculty members in the Respiratory Care Program is significantly increased by the necessity of having to perform a wide variety of secretarial functions on a daily basis, in addition to routine faculty and coordinator responsibilities.

Section II: Curriculum, Assessment, Instruction, Program Credentials, Faculty and Five-Year “Assessment Plan”

7. Program Assessment Plan

- A. Develop a five-year “Assessment Plan” to measure the degree or certificate student learning outcomes you have set forth for your program. (Refer back to the list created in Question 1-B and updated in Question 2-C of Section II).**

Your Assessment Plan must include:

Eight to ten measurable learning outcomes

Methods used to assess these program learning outcomes

Timeline indicating which learning outcomes will be assessed in each of the next five years

Response:

Please refer to Section II, I, B.

Methods used to assess the Respiratory Care Program learning outcomes are performed-per CoARC/CAAHEP guidelines-on an annual basis. Access to the Program’s CoARC 2008 Report of Current Status is available at http://www.coarc.com/annual_reports.htm (User Name: 200037; Password: 28a56540)

SECTION III: Institutional Support and Other Program Resources

The combination of academics, vocational instruction, ties to local employers, and flexibility in designing programs is the unique strength of the community colleges.
-Excerpted from *Closing the Gap*, Massachusetts Institute for a New Commonwealth, 1997.

Section III: Institutional Support and Other Program Resources

Use this section to reflect upon what institutional supports would be useful and why

1. Program Supports

A. Provide as comprehensive a list as possible of all targeted marketing and recruitment strategies employed on behalf of this program. In your opinion, are they appropriate to sustain strong enrollment?

Note: Reference sources might include the following: Admissions, Marketing, peers at other colleges, Advisory Committee members, and professional literature

Response:

No marketing/recruitment strategies targeted specifically to the Respiratory Care Program have been employed. The Respiratory Care Program has been included in events marketing the health career programs in the aggregate, such as college Open House evenings, health fairs, etc. Marketing and recruitment occur in large part through the efforts of Respiratory Care Program faculty, the Program’s medical director, and its advisory committee members. Additionally, the Respiratory Care Program’s long-standing positive reputation within the College service area, as well as word-of-mouth from its graduates, helps to market the program and facilitate recruitment. It remains to be seen if these methods alone will be appropriate to sustain strong enrollment in the long term.

B. Provide recommendations for new or additional marketing or recruitment strategies.

Response:

Those who demonstrate the ability to succeed in challenging science and math courses taken on a multiple credits concurrent basis are most likely to successfully complete the Respiratory Care Program; therefore, targeting high school populations such as those enrolled in AP science courses might be productive. Another potential market may be those who have applied to professional schools such as medical/dental colleges, physician assistant programs, etc. and failed to gain admission for non-academic reasons. Research would need to be conducted by the Admissions Office in order to determine the feasibility of gaining access to the latter population. Additionally, distribution of program-specific literature to physician's offices, hospital waiting rooms and select non-traditional sources such as public libraries may be ways to increase both public awareness of the profession of respiratory care, and to advertise the QCC Respiratory Care Program.

C. Does the program have sufficient linkages with business, community-based organizations, other colleges and universities, or K-12 public schools? Provide as comprehensive a list as possible of all current linkages. Present information in chart form with the name of the business, Community Based Organization (CBO) or other organization in one column and their respective contributions/involvement with the program in the second column.

Response:

		Linkages
1	U-Mass Memorial Healthcare	Advisory Board; Student Sponsorship Program; Clinical affiliate
2	Kindred Hospital of Central MA	Advisory Board; Clinical affiliate
3	St. Vincent Hospital	Advisory Board; Program Medical Director on staff; Clinical affiliate
4	North Atlantic Medical	Advisory Board; Clinical affiliate
5	American Lung Association	Advisory Board
6	Children’s Hospital	Clinical affiliate (observational only)

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- D. Provide specific suggestions for improved program linkages. Please identify the program need and the type of linkage that would be most appropriate. What, if any, assistance does program faculty need in order to facilitate these linkages effectively?**

Response:

The linkage between the Respiratory Care Program and UMASS-Memorial Healthcare could be strengthened by the designation of a staff member to proctor/ provide clinical instruction to QCC Respiratory Care students. The ability of the Respiratory Care Program to rotate students to the UMASS campus is currently dependent upon whether or not program faculty can locate, and the College compensate, an individual both qualified to teach, and familiar with/acceptable to the hospital. In order to facilitate this type of linkage, on-going communication and cooperation between the College/ Respiratory Care Program and the hospital will be necessary, as will the active involvement of the Director/staff of the Respiratory Care Department at UMASS-Memorial.

- E. Does the program have appropriate equipment to meet the instructional demands of the program? (e.g., medical equipment, laboratory supplies, computer hardware and/or peripherals) Please base your response to this question on the analysis of curricular relevance completed in Section II - Questions 1, 2, 4 & 5.**

Response:

In order for the instructional demands of the Respiratory Care Program to truly be met, acquisition of clinical/patient care simulation equipment for use in the laboratory is required. The Respiratory Care Program currently possesses no simulation equipment. The laboratory also lacks sufficient computer access. Please refer to Section III, Part 2-D.

- F. Describe the current program plan for upgrading or replacing instructional equipment. If suggesting acquisition of new or additional equipment, provide a list of required purchases or upgrades. Please present this list in prioritized fashion, identify immediacy of the priority, provide a well-reasoned rationale and, if possible, approximate cost.**

Use the following codes to rank order in terms of immediacy:

IP - Immediate Priority (needs immediate attention)

HP - High Priority (needs attention as soon as possible)

EP- Essential Priority (needs to happen for program to be successful)

Response:

“Disposable” instructional equipment, e.g., incentive spirometers; oxygen masks; medical gases, etc. is replaced on an annual/ as needed basis, based upon needs input received by the Respiratory Care Program Coordinator from the laboratory instructor. Big-ticket items, such as mechanical ventilators, may be donated to the program by manufacturers/local healthcare facilities, obtained through rental from medical equipment companies, or accessed on-site at affiliating institutions.

The Respiratory Care Program currently possesses no clinical simulation equipment. This deficiency severely limits the Respiratory Care Program’s ability to provide simulation-based education in the laboratory—a capability necessary in order to challenge and test students’ clinical and decision-making skills during realistic patient care scenarios. Acquisition of the following equipment is strongly recommended:

Immediate Priority: SimMan 3G (See: <http://www.laerdaltraining.com/simulation/PDF/SimMan3G- Brochure-4217.pdf> and <http://www.laerdaltraining.com/simulation/PDF/SimMan3G-Specifications.pdf>)

Essential Priority: SimNewB Neonatal Simulator
(See: <http://www.laerdal.com/document.asp?subnodeid=32779467>)

Rationale: Acquisition of the clinical simulation equipment recommended will provide Respiratory Care students with highly realistic patient simulation training experiences for the practice of teamwork, leadership

Section III: Institutional Support and Other Program Resources

and communication skills, as well as the ability to practice uncommon scenarios, i.e., practice in training the unusual cases that learners may encounter, both in clinical courses and, ultimately, in the workplace.

Manufacturer (Laerdal) direct quoted cost for these items and associated peripherals, user training: free, during “quote valid” period, etc. Price quotes valid Dec. 2008-March 3, 2009 only.

Immediate Priority	SimMan 3G	List price: \$64,500.00	Extended Price: \$58,905.00
Immediate Priority	SimMan 3G Value Plus Platinum Svc (3Yr)	List Price: \$18,495.00	Extended Price: \$18,310.05
			TOTAL: \$77,215.05
Essential Priority	SimNewB Neonatal Simulator Advanced	List Price: \$23,100.00	Extended Price: \$21,775.05
Essential Priority	SimNewB Advanced Value Plus Platinum (3Yr)	List Price: \$8,295.00	Extended Price: \$8,212.05
			TOTAL: \$29,987.10

G. Please provide any other information pertaining to program supports that might prove helpful to this review.

Response:

Acquisition of simulator technology in the laboratory will enable the QCC Respiratory Care Program to compete with neighboring programs such as that at Springfield Technical Community College, which provides students with access to a fully functional “virtual” intensive care unit.

Section III: Institutional Support and Other Program Resources

2. Academic Supports

- A. Indicate the strengths and limitations of available library or information technology resources as they relate to this program.**

Response:

The library holdings, books, specific to the Respiratory Care Program are currently limited. The faculty routinely requests removal of outdated materials from the collection and is working to enlarge holdings through the ongoing requisition of additional texts. The periodical(s) collection is adequate and up-to-date. Information technology resources specific to the Respiratory Care Program, i.e., clinical simulation software, are adequate and are updated yearly. Certain a-v materials are dated, and will need to be progressively replaced as funding allows.

- B. Attach a list of current library holdings (non-print) and periodicals (non-print) that support this program.**

Response:

Please see Appendix G: Library Holdings for a list of QCC Alden Library materials that support the Respiratory Care Program.

- C. Do the librarians offer an adequate amount of information literacy instruction in support of the teaching and learning efforts of faculty and students in this program? If not, please provide suggestions on how they might provide additional support in this area.**

Response:

QCC library staff provides both faculty and students with literacy instruction in support of teaching/learning efforts when instruction/assistance is requested. For example, it is customary for library staff to provide the Respiratory Care Program freshmen with a formal, approximately two hour overview of resources available to them in the Harrington Learning Center/Library, with emphasis upon how to locate reference/study materials and how to utilize resources to perform independent research.

- D Are there sufficient technology resources, specifically software and hardware resources? Are these resources available and accessible to students? To faculty?**

Response:

HLC/library software and hardware resources are available to both students and faculty, and are sufficient to support the needs of the Respiratory Care Program at this time.

- E. Provide a list of recommended technology acquisitions (i.e., software, hardware, PC projection units, etc.) Please prioritize this list and identify the immediacy of the priority.**

Response:

While technology resources available within the HLC/library are adequate, there exists a major technology need at the program level. Room 376 A currently serves as a laboratory for both the Respiratory Care Program and the Occupational Therapy Assistant Program. In the summer of 2007, 376A was extensively remodeled to better meet the space and design requirements of these two programs; however, the room still fails to provide students with adequate computer access, a feature which was built-in to plans/requests as originally submitted by both programs. At present, 376A is equipped with one computer monitor, an accompanying hard drive and a VCR/DVD player. This equipment is installed at the front of the room, and is primarily intended for faculty instructional use. The Respiratory Care Program was approved for 2008 Perkins funds, which will be used to purchase one laptop computer for student use; however, additional computers are desperately needed to accommodate the Respiratory Care Program's enrollment of 20 students each year. A minimum of 10 computers with Internet access would minimally address this need; 20 would obviously be optimal. This is viewed as a high priority item by Respiratory Care Program faculty.

Section III: Institutional Support and Other Program Resources

- F. Review data from the Harrington Learning Center (Communication Skills Center, Math Center, and Individualized Learning Center) in regard to the academic support services provided to the students in this program.**

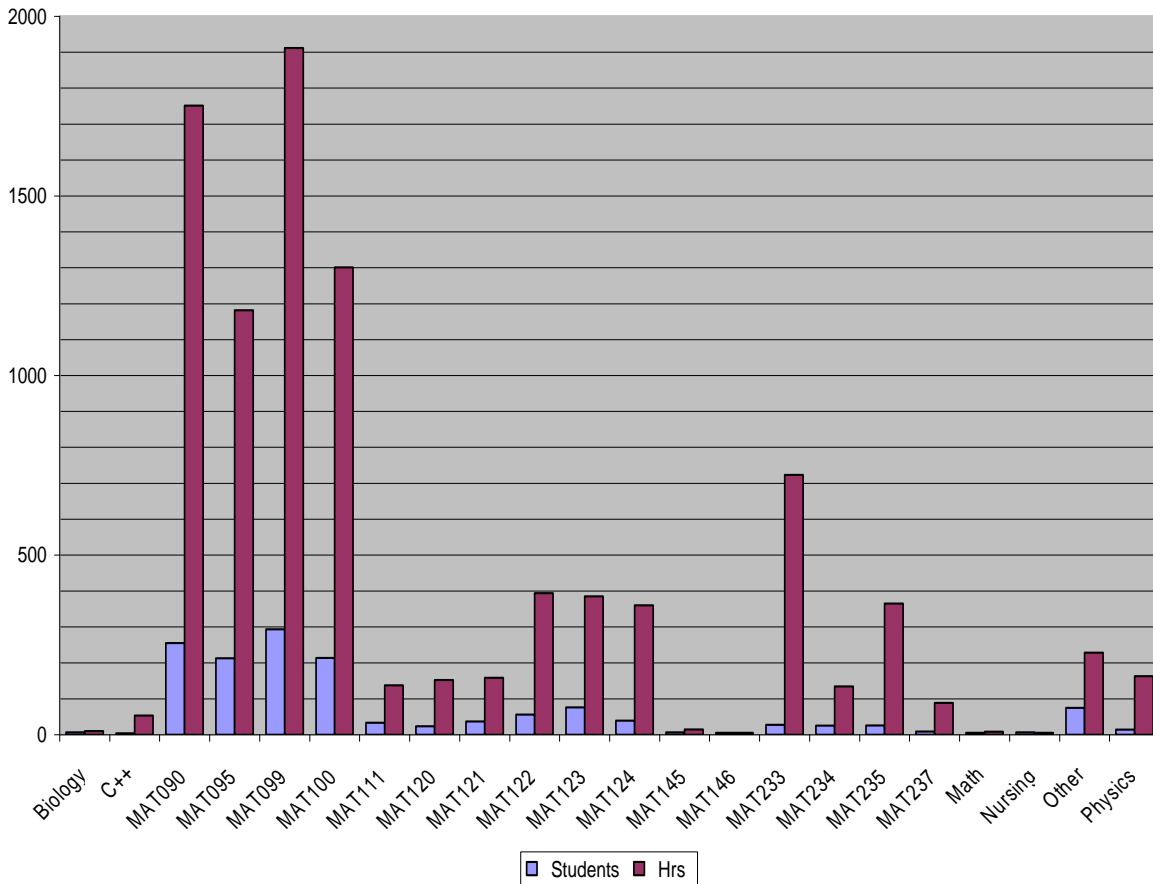
Indicate strengths and limitations of academic support services as they relate to this program. Provide concrete examples of how students in the program have utilized these services over the last three years.

Provide recommendations for additional academic support services that would be beneficial to students in the program. Would these additional support services be of benefit to the entire student body?

Response:

The End of Year Report provided by the Math Center, dated May 23, 2008, does not specifically note utilization of services by Respiratory Care Program students; however, it is reasonable to assume that some number of students planning to enter the Respiratory Care Program may have visited the Math Center during the process of meeting the math requirements for admission to the program. As reported by the Math Center, “students in developmental courses, MAT 090, MAT 095 and MAT 099, and College Algebra, MAT 100, accounted for the largest numbers of students and they spent the most time in the Math Center.” From the data provided, it is impossible to determine what percentage of students already enrolled in the Respiratory Care Program availed themselves of Math Center resources. (Source: End of Year Report-p. 4)

Students and Hours by Subject, QCC Math Center Fall 2007



Section III: Institutional Support and Other Program Resources

Students and Hours by Subject, QCC Math Center

Subject	Fall 2007		Spring 2008	
	Students	Hours	Students	Hours
Biology	7	10.51	9	11.8
C++	4	52.9	-	-
MAT 090	255	1751.63	151	745.7
MAT 095	213	1181.67	212	1082.9
MAT 099	294	1912.33	266	1545.2
MAT 100	214	1300.69	187	1319.6
MAT 111	33	137.4	27	82
MAT 120	24	152.25	-	-
MAT 121	37	158.19	44	143.9
MAT 122	56	394.51	75	607.8
MAT 123	76	385.48	95	678.7
MAT 124	39	360.09	34	203.6
MAT 145	7	14.62	-	-
MAT 146	5	5.18	-	-
MAT 233	27	723.34	42	682.3
MAT 234	25	134.67	32	239.1
MAT 235	26	365.2	25	336.7
MAT 237	9	88.41	-	-
MAT 238	-	-	18	130.9
MAT 243	-	-	18	341.6
Math	5	8.02	17	27
Nursing	7	4.91	3	2.9
Other	75	228.4	97	370
Physics	14	162.51	20	419.1

Summer Sessions 2007

Subject	Visits	Visit Hours	Students
Mat 090	36	55.6	17
Mat 095	290	491.8	64
Mat 099	188	319.1	41
Mat 100	180	391.6	34
Mat 111	30	32.7	13
Mat 121	10	15.8	8
Mat 122	114	251.3	25
Mat 123	89	210.7	16
Mat 124	18	34	6
Mat 233	55	115.1	13
Mat 234	40	102.5	10
Mat 237	5	7.9	4
Mat 238	8	10.7	6
Alumni	3	3.8	1
C++	1	1.5	1
Math	15	25.7	11
Other	29	45	11
Total	1111	2115.7	224

Section III: Institutional Support and Other Program Resources

Summer 2006

	Visits	Visit Hours	Students
Total	738	1159	198

Source: End of Year report

Similarly, information provided by the Communication Skills Center in its Semester & Academic Year End Summary and Accountability Report (dated: Spring 2008) does not provide data specific to Respiratory Care students or potential applicants to the program; therefore, it is impossible to determine utilization of the services provided.

Spring 07 vs. Spring 08, A Comparison Worksheet			
	Sp 07	SP 08	Difference
Total Student Visits	12,286	13522	+1236
Total Hours Used	9522	9827	+305
Total Students Served	1940	1879	-61
Total Classes Held in CSC	160	186	+26
Writing Workshops Attendance	398	348	-40
Students Contacted Through Outreach	950	980	+30

CSC ONLINE Tutoring 07/08	
Total Tutoring Sessions	827

(Source: Semester & Academic Year End Summary and Accountability Report –p.3)

Data from TutorTrac for Academic Program Review (date: 10/23/08) provides the following information as to the utilization of ILC services by Respiratory Care Program students

Respiratory Care Program Students	Total visits	Total visit hours	Students
BIO 111	307	293.2	113
BIO 112	183	199.7	92
BIO 232	124	122.8	67
PHY 101	245	240.8	114
PSY 118	12	6.8	8

Section III: Institutional Support and Other Program Resources

Currently, the most significant limitation of academic support services as they relate Respiratory Care Program students is the lack of a Respiratory Care Program-specific subject matter tutor. From the foregoing it is evident that students utilize tutoring services when such are available to them; however, the college does not currently offer tutoring specific to the professional curriculum. The Respiratory Care Program has attempted to address this deficiency by recruiting sophomore students to tutor on an “as available” basis; however, this has proven less than satisfactory in many respects, the primary being that it is understandably difficult to locate a student who possesses the scholastic aptitude to tutor others, sufficient free time to serve as a tutor, and a willingness to do so on a gratis basis.

Section III: Institutional Support and Other Program Resources

3. Student Supports

- A. To the best of your knowledge, please describe how and when students in the program seek career exploration/planning services. (Program faculty might want to survey enrolled students to assess students' patterns of seeking and utilizing support services.)**

Response:

Respiratory Care Program students do not typically utilize career exploration/planning services.

- B. Provide recommendations for how these services might be more directly integrated into the curriculum.**

Response:

The vast majority of students who select the Respiratory Care Program as a career choice come to that decision after experiencing some sort of "personal" /direct exposure to the profession, e.g., as the parent of an asthmatic child, the friend of a Respiratory Care Program graduate, after contacting a faculty member, after visiting a local hospital's Respiratory Care department, etc. Once a decision is made to seek entry in to the Respiratory Care Program, students typically work closely with program faculty and the College Health Careers Center to insure completion of academic/other prerequisites. Once enrolled, Respiratory Care Program students spend eight hours per week in the professional/patient care setting, beginning with the second week of classes, first semester, freshman year (RCP 121 Clinical I). This commitment increases to 16 hours per week in the second semester with RCP 122 Clinical II, and continues on in to the second year of the program (RCP 123-124, Clinical II/IV). These courses provide students with rapid immersion into the real world of the profession and the career environment, largely obviating the need to seek additional career exploration and planning services. Additionally, students who are in good academic standing/matriculated in an accredited respiratory care program are permitted to work as respiratory care practitioners through issuance of "limited permits" by the MA Department of Public Health Office of Health and Human Services, Division of Health Professions Licensure, Board of Respiratory Care (See: <http://www.mass.gov/Eeohhs2/docs/dph/regs/261cmr002.pdf>) This practice enables students to gain both practical experience and a paid position as an employee of a health care facility's Respiratory Care department. The foregoing information demonstrates the existing integration of "career planning/exploration" activities into both the pre-professional setting and the professional curriculum.

- C. Provide recommendations for enhancing students' career exploration and planning.**

Response:

The ability to consistently be capable of providing therapist "shadowing" opportunities at local hospital Respiratory Care departments would greatly enhance prospective applicant's career exploration and planning. The Respiratory Care Program is currently unable to guarantee the availability of such an opportunity, due to restricted public access at health care facilities/client confidentiality regulations.

- D. To the best of your knowledge, please describe how and when students in the program seek any of the available student support services. Describe specific activities in which you may have been engaged relative to student support services.**

Consider:

- **Counseling Services**
- **Disability Services**
- **Health/Wellness Center**
- **Transfer Information**
- **Other Services (as listed in QCC catalog)**

Response:

Students who enter the Respiratory Care Program with documented disabilities are typically already working with the Office of Disability Services. In other instances, Respiratory Care Program students may be referred by faculty to Disability Services or Counseling Services as appropriate to individual needs. Respiratory Care Program students are made aware during both College general and program-specific orientations of the gamut of support services available to them at the College; however, it is not known how/when students typically utilize

Section III: Institutional Support and Other Program Resources

such services as no data has been provided to the Respiratory Care Program relative to this question, nor does the program survey its students on this question.

E. Are current student support services adequate to support the teaching and learning process? If not, what additional support services do you recommend?

Response:

Current student support services are largely adequate to support the teaching and learning process; however, addition of a tutor in Respiratory Care Program specific subject matter is strongly recommended, and would significantly benefit students enrolled in the program.

F. If applicable, provide a list of program specific scholarships currently available to students.

Response:

The College does not currently offer any program-specific scholarships to Respiratory Care Program students. Scholarships offered by state and national professional organizations such as the MA Society for Respiratory Care, Inc. and the American Association for Respiratory Care are available to students on a competitive/academic achievement basis.

Section III: Institutional Support and Other Program Resources

4. Physical Facilities

- A. Analyze carefully the strengths and limitations of the current physical facilities associated with the program. Do NOT limit your response by concerns regarding feasibility, space allocation, resources, or other perceived constraints. This is an opportunity to recommend a state-of-the-art design for instructional facilities that would support the program. If possible, discuss how other related programs might share these enhanced facilities.**

Response:

For didactic courses, the Respiratory Care Program currently utilizes various regular classrooms, which range in acceptability from good to adequate from an instructional perspective, in both the Surprenant and Administration buildings as well as its laboratory, room 376 of the Administration building, for both didactic and laboratory courses. A truly “state-of-the-art “instructional facility” design would feature a laboratory/classroom dedicated to the exclusive use of the Respiratory Care Program (not shared with unrelated programs), complete with adequate computer access for students, and patient-care simulation capability. Please refer to question 4B below.

- B. The current physical facility may be sufficient from an instructional perspective. Now consider the facility from a marketing perspective (i.e. “selling the program”). Do the facility’s size, design, equipment, and availability draw students to QCC over the competitors’ programs? If possible, cite specific comparisons between QCC and its competitors.**

Response:

In response to a 2006 accreditation report which cited the inadequacy of the Respiratory Care Program laboratory, the facility was subsequently renovated with design input from both the Respiratory Care Program and the Occupational Therapy Assistant Program which share the space. The room, 376A, is currently used to house the majority of didactic courses and all lab courses offered by both programs. Since the facility is a dual-use space for two programs, it is necessary to carefully design a schedule each semester which accommodates the availability needs of both programs. The overall design of the facility is satisfactory, and is largely as was suggested by faculty; however, computer access is lacking as noted in Section III, Part 2-D. This factor compromises the marketability of the Respiratory Care Program, especially in an educational/professional climate which emphasizes the use of computer technology. Similarly, the laboratory is relatively well stocked with a variety of basic respiratory equipment items at this time; however, in order to “compete” with its geographically closest competitor - the Springfield Technical Community College Respiratory Care Program - the laboratory must acquire computer-controlled patient care simulators as noted in Section III, Part 1-F.

- C. Will additional classrooms or laboratories be required? If you project a need for additional classrooms and/or laboratories, please be as specific as possible regarding specifications. Again, do NOT limit your response to this question based on perceived constraints.**

Response:

Additional classrooms/laboratories are technically not required at this time.

- D. Provide additional detail regarding the physical facility that might prove helpful to this program review.**

Response:

This question is not applicable to the Respiratory Care Program.

Section III: Institutional Support and Other Program Resources

5. Program Financing

A. Has the program’s funding been sufficient to meet the program’s instructional objectives over the last five years? Please explain your response.

Response:

Funding for equipment and supplies was largely inadequate prior to programmatic reaccreditation in 2006. This inadequacy was reflected in a citation of the Respiratory Care Program/College (reaccreditation with progress report) for then sub-standard laboratory equipment/facilities by the Site Visit team/CoARC. In order to secure full and unconditional reaccreditation, the College subsequently remedied this issue through an increase in equipment/supplies funding, and renovation of the Respiratory Care Program’s laboratory facilities. Since that time, the budget has been largely sufficient to meet the program’s instructional objectives. However, if the Respiratory Care Program is to continue to meet its CoARC mandated primary objective - that of graduating a competent, advanced level Respiratory Care Practitioner - patient care simulation equipment will need to be acquired for use in the laboratory. Purchase of such equipment will require a further increase in funding.

B. Please complete a thorough cost analysis for the program. In addition to direct costs such as instructional salaries, support staff salaries, and materials and equipment, consider indirect costs. These will include such items as the costs associated with space allocation for classrooms, laboratories, faculty office space, equipment rentals/maintenance, lost opportunity costs, etc.

Response:

Cost analysis for Respiratory Care:

1580	Respiratory Therapy	FY 05	FY 06	FY 07	FY 08	FY 09
6001	01 Salary Expenditures	58,573	63,880	66,140	127,061	126,637
6105	Registration Fees	136	100	248	243	0
6204	03 Employees	5,404	5,000	5,000	5,375	6,000
6309	Fringe Benefits	1,454	1,667	1,994	6,719	5,493
6314	Medicare Tax	80	79	168	81	100
6401	Office & Admin Supplies		343		224	350
6402	Printing Expenses		567		224	500
6406	Postage		7	125	217	400
6407	Internet Charges / Subs & Mem		400	450	2,378	400
6419	Fees/Fines/License&Permt				1,345	
6422	Hospitality Expense		424	38	119	200
6516	Classroom Supplies	660	5,645	7,973	6,735	10,500
6715	Honoraria	373	480	1,449	220	300
6723	Program Coordinators		477	6,000		6,000
6882	AuxilSer/Official/Movers	1,300	1,800	2,200		2,200
6902	Educational Equipment			5,000	1,450	5,000
7029	Medical Equipment Rental			225	225	225
8203	Software License	1,310	192	0	300	1,500
1580	Respiratory Therapy	69,289	81,062	97,010	152,916	165,805
	Indirect Cost Rate	29,101	34,046	40,744	64,225	69,638
	Federal rate: on campus 42%, off campus 32.8% (Source: Provided by Budget Director Todd Emmons)					

Section III: Institutional Support and Other Program Resources

- C. Are there projected increases or decreases in the budgetary requirements of this program over the next three years?**

If you projected a need for additional classroom or laboratory space in the previous section, include the associated costs as well.

Response:

An increase in the full-time faculty/fringe benefits/Medicare tax lines will be required if an additional full-time faculty member is added as recommended; additionally, one-time expenditures for the acquisition of patient-care simulators will be necessary if the Respiratory Care Program is to acquire these essential equipment items for the laboratory. Please refer to Section III, Part 1-F.

- D. Develop a recommended budget for the program for the next three years. Separate the projected costs into operating costs and capital expenditures.**

Response:

Line Item	2009	2010	2011	Notes
6001 Salary Expenditures	126,637	132,969	139,618	<u>Projected salary/benefits for addt'l full-time faculty member: n/a</u>
6105 Registration Fees	0	0	0	
6204 03 Employees	6000	6300	6615	<u>It will be possible to decrease use of 03 employees if an additional full-time faculty member is added</u>
6309 Fringe Benefits	5493	5768	6057	<u>See above line item 6001</u>
6314 Medicare Tax	100	105	111	<u>See above line item 6001</u>
6401 Office/Adm. Supplies	350	370	380	
6402 Printing Exp.	500	525	550	
6406 Postage	400	420	440	
6407 Internet Charges/Subs&Mem	400	420	440	
6419 Fees/Fines/Licenses/Permits	1345	1415	1485	
6422 Hospitality Expense	200	210	225	
6516 Classroom Supplies	10,500	88,240*	41,563**	2010 and 2011 reflect recommended .05% increase AND projected costs for purchase of patient care simulation equipment (<u>prices as noted valid through 03/09 only</u>) *SimMan 3G: \$77,215 ** SimNewB: \$29,987
6715 Honoraria	300	315	330	

Section III: Institutional Support and Other Program Resources

6723 Program Coordinators	6000	6300	6615	
6882 Aux/Ser/Official/Movers	2200	2200*	2200*	*Actual funding requirements line 6882 are projected to decrease (as renovations to room 376A are completed)
6902 Educational Equip. (Cont).	5000	5250	5513	
7029 Medical Equipment/Rental	225	237	250	
8203 Software License	1500	1575	1655	
Total	165,805	252,619	210,047	

E. Include any additional information regarding program financing that may be helpful to this program review.

Response:

Respiratory Care Program faculty routinely submit requests for Perkins and other types of additional funding) whenever such become available. These funds are used to supplement the basic budget, and are typically applied to the purchase of educational equipment items/classroom and laboratory supplies.

SECTION IV: Executive Summary of Findings

“In times of change, it is the learners who will inherit the earth, while the learned will find themselves beautifully equipped for a world that no longer exists.” Eric Hoffer

- Excerpted from the website of the American Association of Community Colleges

Section IV: Executive Summary of Findings

- **Briefly summarize the Purpose and Definition of the Program as well as the Program's Goals.**

Fully and unconditionally accredited by the Commission on Accreditation of Allied Health Educational Care (CAHEP) and the Commission on Accreditation for Respiratory Care (CoARC), the Quinsigamond Community College Respiratory Care Program embodies the College's mission to create and offer quality programs of educational relevancy that serve the diverse needs of the central Massachusetts population. Through integration of academic, career, and technical skills preparation, the Respiratory Care Program has, since its evolution from the St. Vincent Hospital-based "School of Inhalation Therapy" in 1970, prepared more than 350 men and women for immediate entry into the workforce or transfer to four-year institutions. Today, Respiratory Care Program alumni represent both the College and the program as practitioners, managers, educators, salespersons, and clinical researchers, both regionally and nationally. Respiratory Care Program graduates are entering a profession for which the employment outlook remains positive, salaries are competitive, and opportunities for career advancement plentiful.

Purpose and Definition of the Program

The purpose of the Respiratory Care Program is to prepare students to obtain the Registered Respiratory Therapist (RRT) credential and to be eligible for employment as advanced level respiratory therapists. The Respiratory Care Program is an eight month, associate degree program which prepares its graduates for employment as allied health practitioners in the specialty area of pulmonary medicine. The Respiratory Care Program is fully accredited by the Commission on Accreditation of Allied Health Education Programs (CAHEP).

Program Goals

The summative goal for advanced level respiratory care training programs is mandated by the Commission on Accreditation for Respiratory Care (CoARC):

“Upon completion of the Program, the student will be a competent advanced level Respiratory Therapist in the cognitive(knowledge), psychomotor (skills), and affective (behavior) learning domains.”

(Source: www.coarc.com)

Respiratory Care programmatic learning outcomes include both professional and general education competencies.

Professional competencies:

The Respiratory Care Program's professional competencies are mandated by CoARC: “Upon completion of the Program, the graduate will be a competent advanced-level graduate Respiratory Care Practitioner who is able to do the following:

- Demonstrate professional behaviors consistent with employer expectations of an advanced-level Respiratory Care Practitioner.
- Demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to his/her role as an advanced-level Respiratory Care Practitioner.
- Demonstrate the technical/psychomotor skills necessary to fulfill his/her role as advanced-level Respiratory Care Practitioner.
- Demonstrate the ability to successfully work as a healthcare team member, and to interact successfully with physicians and other health care professionals.
- Demonstrate awareness of the need to promote his/her professional development and maintain professional currency by taking part in continuing education, conducting research, reading professional literature, etc., and maintaining membership in professional organizations such as the American Association for Respiratory Care.
- Demonstrate the ability to communicate effectively both orally and in writing in the English language.”
(Notation: bullets have been inserted by document writer)

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General education competencies:

The Respiratory Care Program's general education competencies are as follows:

- Reading Comprehension: Upon completion of the Respiratory Care Program, students will be able to understand, to analyze, and to evaluate readings from a variety of texts and to apply that learning to academic, personal, and professional contexts.
- Effective Communication: Upon completion of the Respiratory Care Program, students will be able to effectively use the English language, writing and speaking with clarity, coherence, and persuasiveness.
- Critical Thinking: Upon completion of the Respiratory Care Program, students will be able to think critically, independently, and creatively so that they can make informed and logical judgments of the arguments of others, arrive at reasoned and meaningful arguments and positions, and formulate and apply ideas to new contexts.
- Quantitative Reasoning: Upon completion of the Respiratory Care Program, students will be able to comprehend and to use quantitative concepts and methods to interpret and to critically evaluate data and to effectively problem-solve in a variety of contexts demanding quantitative literacy.
- Information Literacy: Upon completion of the Respiratory Care Program students will be able to locate, access, analyze, and utilize information that facilitates learning and critical inquiry and to adhere to the standards of academic honesty in their use of that information.
- Diversity Competency: Upon completion of the Respiratory Care Program students will demonstrate the awareness, understanding, and respect necessary to live in a diverse world, as well as an ability to work cooperatively and effectively in multidisciplinary and diverse teams.

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- Briefly summarize the **Employment Field** for program graduates. Include **Job Outlook and Salary Information**.

The following information is from <http://www.bls.gov/oco/ocos084.htm>

“Faster-than-average employment growth is projected for respiratory therapists. Job opportunities should be very good, especially for respiratory therapists with cardiopulmonary care skills or experience working with infants ... Employment of respiratory therapists is expected to grow 19 percent from 2006 to 2016, faster than the average for all occupations. The increasing demand will come from substantial growth in the middle-aged and elderly population—a development that will heighten the incidence of cardiopulmonary disease. Growth in demand will also result from the expanding role of respiratory therapists in case management, disease prevention, emergency care, and the early detection of pulmonary disorders.” (Source: Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2008-09 Edition*, Respiratory Therapists at <http://www.bls.gov/oco/ocos084.htm>)

Additionally, job openings will result from the need to replace experienced therapists/respiratory therapy educators who leave the profession due to retirement. “The profession is getting older. The mean age rose from 40 in 2000 to 44.59 in 2005” ... and “based on the years of remaining service reported by respondents, respiratory care will lose nearly half of its current Program Directors within the next 10 years, along with about one-third of its Directors of Clinical Education and other faculty.” (Source: Human Resources Survey, American Association for Respiratory Care, 2005)

According to data compiled by Economic Modeling Specialists, Inc. (EMSI) there will be a very significant increase in respiratory care jobs between 2006-2016. It is projected that by 2016, Worcester County will see a 33% increase in the number of respiratory care jobs while the state of Massachusetts will experience a 28% increase and nationally there will be a 25% increase. According to EMSI, when new and replacement jobs for this same time period are taken into consideration, the projected increase is considerably higher and is as follows: Worcester County: 83%, Massachusetts: 81%, and USA: 81%. EMSI reports median hourly earnings for respiratory therapists as follows: Worcester County: \$19.74, Massachusetts: \$26.20, and USA: \$23.14. It is not reported whether shift and other differentials were included in these figures.

EMSI
Jobs by Occupation Report
2/28/08

Description	2006 Jobs	2016 Jobs	% Chg	New & Rep. Jobs	% New & Rep.	Median Hrly Earns	State 2006	State 2016	State % Chg	State New & Rep. Jobs	State % New & Rep.	State Median Hourly Earns	National 2006	National 2016	Natl % Chg	Natl New & Rep. Jobs	Nat % New & Rep.	Natl Med Hrly Earns	Edu Lev
Respiratory therapists	222	295	33%	195	88%	\$19.74	2,268	2,901	28%	1,884	83%	\$26.20	102,969	129,167	25%	82,968	81%	\$23.14	AS
Respiratory therapy technicians	24	26	8%	7	29%	\$17.43	242	250	3%	59	24%	\$23.73	18,972	19,137	1%	4,168	22%	\$19.10	AS
	246	322	31%	203	82%	\$19.51	2,510	3,151	26%	1,944	77%	\$25.97	121,941	148,304	22%	87,135	71%	\$22.52	

(Source: Economic Modeling Specialists, Inc.)

The following information is from the US Bureau of Labor Statistics and can be found at <http://www.bls.gov/oco/ocos084.htm#outlook>

“Median annual earnings of wage-and-salary respiratory therapists were \$47,420 in May 2006. The middle 50 percent earned between \$40,840 and \$56,160. The lowest 10 percent earned less than \$35,200, and the highest 10 percent earned more than \$64,190. Median annual earnings of wage-and-salary respiratory therapy technicians were \$39,120 in May 2006. The middle 50 percent earned between \$32,050 and \$46,930. The lowest 10 percent earned less than \$25,940, and the highest 10 percent earned more than \$56,220”

The results of the most recent nationwide Human Resources Study conducted by the American Association for Respiratory Care (AARC) present a similarly positive picture for the profession, noting that: (a) the mean hourly wage

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(including shift and other differentials) for respiratory therapists rose 38 percent, from \$19.62 in 2000 to \$27.03 in 2005; and (b) new graduate incomes increased by 24 percent, from \$16.15 in 2000 to \$19.97 in 2005. Additionally, projections derived from the survey indicate that the number of budgeted FTEs in acute care hospitals will reach 171,693 in 2010-up from 151, 559 in 2005. (Source: Human Resources Survey, American Association for Respiratory Care, 2005)

To summarize, all indicators suggest that employment opportunities for Respiratory Care Program graduates will be available locally, regionally, and nationally; and wages will remain competitive with those of other comparably educated allied health professionals.

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- **Based on this program review, briefly summarize the program strengths and recommendations for improvement using the outline below.**
 - **Highlight the significant External Forces Guiding Program Design and Revision in the next three to five years.**

The Respiratory Care Program is designed in accordance with the Standards and Guidelines for Accredited Programs established by the Committee on Accreditation for Respiratory Care/CAAHEP.

Program curricular revision is guided by a number of external forces, including the following:

- The National Board for Respiratory Care, Inc., whose Written Registry and Clinical Simulation Examinations for Advanced Respiratory Therapists Content Outlines are reviewed on an annual basis to ensure that the current curriculum provides: (a) the cognitive content and (b) instruction in the procedural skills deemed necessary to professional competency by the profession's national credentialing agency
 - Graduates and employers, whose input is solicited on a yearly basis via graduate and employer surveys
 - Respiratory Care Program advisory board members and medical director who provide the program with an invaluable link to the healthcare industry and the communities of interest served by the program
 - American Association for Respiratory Care, the national professional organization for respiratory therapists, whose educational offerings, such as the Summer Forum for Educators, provides faculty with current and timely information relative to the profession, pedagogy, the development/revision of appropriate programmatic goals and standards, and student recruitment, retention and assessment.
- **Recap the Strengths or Unique Features of the Proposed Curriculum.**

The Respiratory Care Program curriculum is structured in accordance with guidelines established by the program's accrediting agencies (CoARC/CAAHEP); additionally, comparison of curriculum content to National Board for Respiratory Care, Inc. (NBRC) Written Registry and Clinical Simulation Examinations for Advanced Respiratory Therapists Content Outlines is ongoing, to insure that the current curriculum provides: (a) the cognitive content, and (b) instruction in the procedural skills deemed necessary to professional competency by the profession's national credentialing agency. The NBRC Content Outlines provide a framework for the programmatic instructional plan, and define basic content of the Respiratory Care Program's curriculum. Based upon the increasingly sophisticated coverage of basic cardiopulmonary anatomy/physiology and pathophysiology required by the most recently reviewed examination content matrices, there are three relatively minor changes proposed to the current curriculum:

- A one-credit increase in credits assigned to RCP 111 Medical Lectures I (currently two credits).
Rationale: This change is proposed in order to provide additional instructional time, which is required in order to more comprehensively present the subject matter.

Course description: RCP 111 Medical Lectures I

This course covers normal pulmonary and cardiovascular anatomy and physiology, ventilation, oxygen transport, carbon dioxide transport, and oxygen saturation. An introduction to the pathophysiology associated with oxygen deficiency will also be included.

- A one-credit increase in credits assigned to RCP 114 Medical Lectures IV (currently two credits).
Rationale: This change is proposed in order to provide additional instructional time, which is required: (a) in order to more comprehensively present the subject matter, and (b) in order to incorporate additional patient case management studies.

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Course description: RCP 114 Medical Lectures IV

This course explores the etiology, clinical presentation, pathologic features, diagnostics and treatment of pathologies commonly encountered in Respiratory Care practice. The focus is upon cardiopulmonary and other systems disorders as these present in the adult client. Case studies/independent research/writing and physician lectures are utilized to help promote the student's understanding and to develop the student's critical thinking skills.

Prerequisites: BIO 112, RCP 113. S

➤ Course name change:

Current: RCP 243 Pediatrics/Perinatology

Proposed: RCP 243 Pediatric and Neonatal Respiratory Care.

Rationale: This change is proposed in order to more accurately reflect current course content and focus.

Course description: RCP 243 Pediatrics/Perinatology

This course covers the normal and pathophysiological events that affect the cardiopulmonary status of the fetus, infant, and child. Students study fetal development, the nature and physiology of neonatal and pediatric pathology and the application of this information in the clinical setting. Other topics include neonatal resuscitation and advanced life support.

Prerequisites: BIO 112. S

Summary

The proposed credit changes will allow for expanded coverage of essential material, thus strengthening the curriculum's ability to prepare students for practice in an increasingly sophisticated professional environment. One course name change is proposed in order to more accurately represent the content and focus of the course.

- **Briefly describe the Program's Instructional Approaches as well as the Assessment Methodologies.**

Instructional Approaches

The Respiratory Care Program utilizes a variety of instructional methodologies to promote/enhance student learning.

The primary methodologies employed to convey information in the classroom are as follows:

- Faculty or guest lecture/lecture with discussion
- student independent research and writing
- case study analysis
- instructional software

It is intended that laboratory time be utilized primarily to provide students with opportunity to develop the skills required to become safe and competent practitioners in the clinical setting; therefore, laboratory instruction emphasizes integration of theory with acquisition of the psychomotor skills required to utilize equipment and to perform therapeutic procedures safely and effectively when the student subsequently enters in to the patient care environment.

The primary methodology employed in the laboratory/clinical settings is direct instruction, which is conducted in the following manner:

- Demonstration of technical skills by the instructor (student observes)
- Student performance of technical skills (instructor observes, coaches, and corrects as needed; peers observe)
- Observational assessment by student (student is encouraged to act as evaluator of peer performance)
- Laboratory practice/ subsequent independent performance (clinical)

As a part of the total professional educational experience, students are also required to do the following:

- Attend relevant conferences such as the MA Society for Respiratory Care, Inc. annual meeting, physician lectures/ bedside rounds, and in-service presentations
- Actively participate in knowledge and skills-based programs (e.g., Advanced Cardiac Life Support certification)

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Any of various instructional approaches—from case analysis/discussion, to task demonstration/performance, to the use of computer assisted instructional software/computer simulations— may be utilized in these settings/activities.

Ongoing oral exchange between instructor and student, typically in a question and answer or question and discussion format, supplements all of the instructional methodologies employed by the program, whatever the setting. Oral exchange is intended to

- Ascertain student understanding of theoretical concepts, as well as of any performance elements required
- Encourage student application of theory to practice
- Stimulate critical thinking on the part of the student.

Critical thinking skills are also developed through the following:

- Assignment of client case presentations
- Analysis of practice-oriented situational scenarios in-class and in clinical
- Through the completion of "clinical simulation" software

Additionally, student communication skills are developed through the following:

- Preparation/oral presentation of case study reports and research papers
- Active involvement in the profession and the community is fostered through the Completion of a service- related project as a component of RCP 245 Respiratory Care Seminar.

Assessment Methodologies

The student and final outcomes assessment methodologies employed by the Respiratory Care Program have four specific and interrelated purposes: (1) to improve student learning; (2) to improve teaching strategies;(3) to document successes and identify opportunities for improvement; and (4) to provide evidence of programmatic effectiveness.

Methods used to conduct assessment include:

<u>COURSE LEVEL ASSESSMENT</u>	<u>DIRECT MEASURE METHODS</u> Standardized tests (e.g., NBRC Secure Self-Assessment Examinations) Written Term Papers/Reports/ Examinations Formative/summative (individual) clinical and laboratory performance evaluations conducted at mid-semester and again at the conclusion of the semester/clinical rotation On-site Observations of clinical/laboratory performance by the Director of Clinical Education Class participation Case study analysis/"critical thinking" questions Simulations (Laboratory and Software) Behavioral observations (classroom/lab/clinical affective assessment) Grades based on explicit published criteria related to clear learning goals and objectives Student Program Resource Surveys
<u>PROGRAM LEVEL ASSESSMENT</u>	Pass rates/scores on national credentialing examinations Employer Surveys Graduate Surveys Graduate Employment/ Placement Rates Compliance with cut scores/thresholds as stipulated on: CoARC Outcomes Assessment Thresholds (Source: CoARC Outcomes Assessment Thresholds, 03/02/2007. http://www.coarc.com/thresholds.htm)

Section IV: Executive Summary of Findings

- **Emphasize the Specific Areas Targeted for Improvement and discuss the anticipated changes recommended to address the concerns.**

As has been noted, the respiratory therapist's scope of professional practice continues to evolve. With this expansion of roles and responsibilities comes the need for an increasingly sophisticated knowledge base in the areas of cardiopulmonary anatomy and physiology, and respiratory pathophysiology.

In order to provide this knowledge base, an increase in total instructional time, and therefore credits, is required in two courses which are directly concerned with provision of this material: RCP 111 Medical Lectures I, and RCP 114 Medical Lectures IV. Please refer to the course descriptions, above. A one credit increase is proposed for each of these courses, both of which are currently assigned two credits.

A name change is proposed for RCP 243 Pediatrics/Perinatology (to: RCP 243 Pediatric and Neonatal Respiratory Care) in order to more accurately reflect current course content and focus.

The following are critical in the support of the: The following specific areas are being targeted for improvement as a result of this Respiratory Care Program Review:

- Budgetary allocation for purchase of simulator equipment for the laboratory is required. Acquisition of clinical simulation equipment will provide Respiratory Care Program students with highly realistic patient simulation training experiences for the practice of teamwork, leadership and communication skills, as well as the ability to practice both common and uncommon scenarios (i.e., practice in training the cases that may be encountered both in clinical courses and, ultimately, in the workplace.)
- An additional full-time faculty member is required to assist with coverage of didactic, laboratory and clinical components of the Respiratory Care Program. The two full-time faculty are seriously challenged by the demands of their current workloads, which include: meeting the needs of students currently enrolled in the Respiratory Care Program; teaching core professional courses; assuming total responsibility for program coordination and clinical coordination; organizing and conducting faculty meetings, advisory board meetings, etc; complying with the various mandates of external accreditation such as annual report preparation; recruitment/orientation/ mentoring of adjunct faculty; assisting adjuncts in the student evaluation process; maintaining required programmatic/student documentation; participating in ongoing student advisement; distributing/analyzing/maintaining CoARC- required surveys/paperwork, data, etc; attending a variety of college meetings and participating in governance activities; responding to requests from the College/the community for assistance with a variety of programs, e.g., health & career fairs; continuously updating/revising/rewriting courses taught in order to remain current with changes in the dynamic areas of health science/healthcare/the profession; performing college service activities as contractually mandated.

The foregoing is, by no means an exhaustive list of faculty responsibilities. As these activities are all essentially "mandatory", there is little to no time available for creative reflection on teaching/learning, participation in professional development activities, keeping the program truly current as opposed to continuously "catching up", or actively pursuing program expansion possibilities, e.g., development of a polysomnography certificate option.

The addition of a third, full-time faculty member would significantly ease the workload of the two current full-time faculty, permit these faculty members to devote time to pursuit of continuing education/program expansion, and help to address the ongoing and ever problematic issue of recruitment of qualified adjuncts to teach laboratory/clinical sections of the curriculum. Ideally, the additional full-time faculty member would assume the role of full-time laboratory coordinator /instructor, with secondary responsibility for approximately 24-32 hours/week of clinical instruction in an affiliate institution. The presence of an additional full-time faculty member would significantly improve the ability of the Respiratory Care Program to provide a consistently high quality laboratory and clinical experience, as well as help to insure full coverage of all laboratory courses, and at least partial coverage of clinical courses, from semester to semester. Additionally, if the full-time staffing level were increased, it would

Section IV: Executive Summary of Findings

be feasible to investigate the possibility of increasing the number of students admitted to the freshman class each year from 20 to 25.

- There exists a major technology need at the program level. Room 376 A serves as a laboratory and classroom for both the Respiratory Care Program and the Occupational Therapy Assistant Program. In the summer of 2007, this room was extensively remodeled to better meet the space and design requirements of these two programs; however, the room still fails to provide students with computer access (a feature which was built-in to plans/requests as originally submitted by both programs). At present, 376A is equipped with one computer monitor, an accompanying hard drive and a VCR/DVD player (this equipment is installed at the front of the room, and is obviously intended for faculty instructional use). The Respiratory Care Program was approved for Perkins funds in 2008, which will be used to purchase one laptop computer for student use; however, additional computers are desperately needed to accommodate the program's enrollment of 20 students each year. A minimum of 10 computers with Internet access would minimally address this need; 20 would be optimal.
- Development of a polysomnography certificate option would potentially increase the Respiratory Care Program's marketability, recruitment and enrollment.
- If the Respiratory Care Program is to consider expansion in to the area of polysomnography, it will be necessary for the program coordinator to acquire the training/credentialing appropriate to this specialty area of practice. This acquisition would ideally position the Respiratory Care Program to offer a certificate option in polysomnography.
- Dedicated secretarial support is needed to support Respiratory Care Program faculty. Currently, there is no professional support staff dedicated solely to the program. Assistance with secretarial tasks is occasionally requested of, and provided by, the staff assistant of the instructional dean; however, such assistance is available on a workload permitting basis only, which oftentimes results in some delay in getting program materials processed, distributed, returned, etc. To function optimally, the Respiratory Care Program requires the assistance of a dedicated secretary/administrative assistant on at least a half-time basis. The workload of the two full-time faculty members in the Respiratory Care Program is significantly increased by the necessity of having to perform a wide variety of secretarial functions on a daily basis, in addition to routine faculty and coordinator responsibilities.
- Currently, the most significant limitation of academic support services as they relate to the Respiratory Care Program is the lack of a program-specific subject matter tutor. Data supplied by the various academic support services indicates that the Respiratory Care Program students do utilize tutoring services when such are available to them; however, the college does not currently offer tutoring specific to the professional curriculum.
- To date, no marketing/recruitment strategies targeted specifically to the Respiratory Care Program have been employed by the College. If enrollment is to remain strong, it is essential that the program be aggressively promoted as an option to those interested in pursuing a career in healthcare.
- Programmatic library holdings require updating and expansion. Many of the Respiratory Care Program's current materials and /texts are outdated, and there is need to expand the size and scope of the collection.
- An expanded linkage with UMASS. Hospital, in the form of a clinical preceptor or adjunct clinical faculty member, would enable students enrolled in the Respiratory Care Program to be assigned to clinical rotations at the University campus. Experience at this facility, the region's only Level One Trauma Center, is crucial to the development of overall student clinical competency.

Section IV: Executive Summary of Findings

- Identify the Supports and Resources that are Critical to Supporting the Program's Goals.

In chart form, provide a **Prioritized List of Program Needs or Action Steps** that you recommended be completed for this program. The summarized and prioritized list may include recommendations for such things as additional marketing and faculty as well as equipment, facility and/or instructional materials. Your chart should also include estimated costs and suggested completion dates. Be sure to address all needs mentioned in Sections I through III of the APR document.

Use the following codes to rank order in terms of immediacy:

IP - Immediate Priority (needs immediate attention)

HP - High Priority (needs attention as soon as possible)

EP- Essential Priority (needs to happen for program to be successful)

PRIORITY	NEED/ACTION STEP	COST	DATE REQUIRED
Immediate	SimMan 3G mannequin+Value Plus Platinum Service for 3 years	\$58,905+ <u>\$18,310.05=</u> \$77,215,05	Immediate
Essential	SimNew B mannequin+ Value Plus Platinum Service for 3 years	\$21,775.05+ <u>\$8,212.05=</u> \$29,987.10	Within 12 months
High	Additional full-time faculty member	Commensurate with MTA/MCCC salary schedule and dependent upon education, experience, etc.	Within 12 months
High	Computers-376A (minimum 10 units; Internet access required)	Not available at this time; TBD	As soon as possible
Essential	Development of polysomnography certificate program; faculty training/credentialing in polysomnography	Development costs TBD; Faculty training and credentialing \$3,600 (not including travel expenses/lodging, etc.	Within 12-24 months
Essential	Dedicated secretarial support	Commensurate with MCCC wage schedule	As soon as possible
Essential	Program specific marketing	Not available	Within 6-12 months
High	Expansion of Program library holdings	Not available at this time; TBD	As soon as possible
High	UMASS Hospital-student clinical preceptor/adjunct faculty	TBD (based upon nature of position-preceptor vs. adjunct faculty)	As soon as possible
High	Subject matter tutor	Not available	As soon as possible

Appendix A: Occupation Report; Program Review Report; Worcester Region Jobs by Occupation

Respiratory Care
Worcester Region
Jobs by Occupation
2/28/08

<u>SOC Code</u>	<u>Description</u>	<u>2006 Jobs</u>	<u>2016 Jobs</u>	<u>Change</u>	<u>% Change</u>	<u>New & Rep. Jobs</u>	<u>% New & Rep.</u>	<u>Median Hourly Earnings</u>	<u>Avg Hourly Earnings</u>	<u>State 2006</u>	<u>State 2016</u>	<u>State % Change</u>	<u>State New & Rep. Jobs</u>	<u>State % New & Rep.</u>	<u>State Median Hourly Earnings</u>	<u>State Avg Hourly Earnings</u>	<u>National 2006</u>	<u>National 2016</u>	<u>National % Change</u>	<u>National New & Rep. Jobs</u>	<u>National % New & Rep.</u>	<u>National Median Hourly Earnings</u>	<u>National Avg Hourly Earnings</u>	<u>Education Level</u>
29-1126	Respiratory therapists	222	295	73	33%	195	88%	\$19.74	\$19.82	2,268	2,901	28%	1,884	83%	\$26.20	\$26.31	102,969	129,167	25%	82,968	81%	\$23.14	\$23.34	Associate's degree
29-2054	Respiratory therapy technicians	24	26	2	8%	7	29%	\$17.43	\$18.53	242	250	3%	59	24%	\$23.73	\$25.21	18,972	19,137	1%	4,168	22%	\$19.10	\$19.15	Associate's degree
		246	322	76	31%	203	82%	\$19.51	\$19.70	2,510	3,151	26%	1,944	77%	\$25.97	\$26.21	121,941	148,304	22%	87,135	71%	\$22.52	\$22.69	

Source: EMSI Complete Employment - September 2007

Data Sources and Calculations

Industry Data

In order to capture a complete picture of industry employment, EMSI basically combines covered employment data from Quarterly Census of Employment and Wages (QCEW) produced by the Department of Labor with total employment data in Regional Economic Information System (REIS) published by the Bureau of Economic Analysis (BEA), augmented with County Business Patterns (CBP) and Nonemployer Statistics (NES) published by the U.S. Census Bureau. Projections are based on the latest available EMSI industry data combined with past trends in each industry and the industry growth rates in national projections (Bureau of Labor Statistics) and states' own projections, where available.

Occupation Data: Organizing regional employment information by occupation provides a workforce-oriented view of the regional economy. EMSI's occupation data are based on EMSI's industry data and regional staffing patterns taken from the Occupational Employment Statistics program (U.S. Bureau of Labor Statistics). Wage information is partially derived from the American Community Survey. The occupation-to-program (SOC-to-CIP) crosswalk is based on one from the U.S. Department of Education, with customizations by EMSI.

Educational Attainment Data: EMSI's educational attainment numbers are based on Census 1990, Census 2000, the Current Population Survey, and EMSI's demographic data. By combining these sources, EMSI interpolates for missing years and projects data at the county level. Educational attainment data cover only the population aged 25 years or more and indicate the highest level achieved.

State Data Sources: This report uses state data from the following agencies: Massachusetts did not provide us with a data source.

Appendix B: Respiratory Care Program Fact Sheet

Respiratory Care Program Fact Sheet

Respiratory therapists work in a wide variety of healthcare settings (including hospitals, extended care and rehabilitation facilities; educational institutions; clinics; physician's offices; home care; sleep labs; diagnostic and research labs; and pharmaceutical companies) to evaluate, treat, and manage patients of all ages with respiratory illnesses and other cardiopulmonary disorders. The respiratory therapist participates in clinical decision-making and patient education, develops and implements respiratory care plans, applies therapist driven protocols, utilizes evidence-based clinical practice guidelines, and participates in health promotion, disease prevention, and disease management. The respiratory therapist may be required to exercise considerable independent judgment (under the supervision of a physician) in the respiratory care of patients.

Unique Features/Benefits of the QCC Program:

- The QCC Respiratory Care Program was the first of its kind established in the state of Massachusetts
- The QCC Respiratory Care Program has graduated over 350 men and women into the healthcare workforce since its founding in 1970; the majority of those employed in Respiratory Care in central MA are graduates of the program.
- The QCC Respiratory Care Program is centrally located in the "heart of the Commonwealth", easily accessible from Interstate 90, routes 290, 190, 495, etc.
- The QCC Respiratory Care Program admits a class of 20 students once per year; as a result, classes are small, and the faculty: student ratio in lecture, lab and clinical courses is high.
- The QCC Respiratory Care Program uses all of the great medical resources central MA has to offer; Respiratory Care Program students train at first-rate facilities such as UMASS Memorial Medical Center and St Vincent Hospital at Worcester Medical Center.

Job Outlook for Respiratory Therapists:

- "Faster-than-average employment growth is projected for respiratory therapists. Job opportunities should be very good, especially for respiratory therapists with cardiopulmonary care skills or experience working with infants ... Employment of respiratory therapists is expected to grow 19 percent from 2006 to 2016, faster than the average for all occupations. The increasing demand will come from substantial growth in the middle-aged and elderly population—a development that will heighten the incidence of cardiopulmonary disease. Growth in demand will also result from the expanding role of respiratory therapists in case management, disease prevention, emergency care, and the early detection of pulmonary disorders." (Source: Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2008-09 Edition*, Respiratory Therapists at <http://www.bls.gov/oco/ocos084.htm>)
- Additionally, job openings will result from the need to replace experienced therapists/respiratory therapy educators who leave the profession due to retirement. "The profession is getting older. The mean age rose from 40 in 2000 to 44.59 in 2005" ...and "based on the years of remaining service reported by respondents, respiratory care will lose nearly half of its current Program Directors within the next 10 years, along with about one-third of its Directors of Clinical Education and other faculty."
(Source: Human Resources Survey, American Association for Respiratory Care, 2005)
- According to data compiled by Economic Modeling Specialists, Inc. (EMSI) there will be a very significant increase in respiratory care jobs between 2006-2016. It is projected that by 2016, Worcester County will see a 33% increase in the number of respiratory care jobs while the state of Massachusetts will experience a 28% increase and nationally there will be a 25% increase. According to EMSI, when new and replacement jobs for this same time period are taken into consideration, the projected increase is considerably higher and is as follows: Worcester County: 83%, Massachusetts: 81%, and USA: 81%. EMSI reports median hourly earnings for respiratory therapists as follows: Worcester County: \$19.74, Massachusetts: \$26.20, and USA: \$23.14. It is not reported whether shift and other differentials were included in these figures. (Source: EMSI/QCC: Jobs by Occupation Report below)

Appendix B: Respiratory Care Program Fact Sheet

Respiratory Care Program Graduation Competencies:

General Education Competencies		
1	Reading Comprehension	Upon completion of the program, students will be able to understand, to analyze, and to evaluate readings from a variety of texts and to apply that learning to academic, personal, and professional contexts
2	Effective Communication	Upon completion of the program, students will be able to effectively use the English language, writing and speaking with clarity, coherence, and persuasiveness.
3	Critical Thinking	Upon completion of the program, students will be able to think critically, independently, and creatively so that they can make informed and logical judgments of the arguments of others, arrive at reasoned and meaningful arguments and positions, and formulate and apply ideas to new contexts.
4	Quantitative Reasoning	Upon completion of the program, students will be able to comprehend and use quantitative concepts and method to interpret and to critically evaluate data and to effectively problem-solve in a variety of contexts demanding quantitative literacy
5	Information Literacy	Upon completion of the program students will be able to locate access, analyze, and utilize information that facilitates learning and critical inquiry and to adhere to the standard of academic honesty in their use of that information.
6	Diversity Competency	Upon completion of the program students will demonstrate the awareness, understanding, and respect necessary to live in a diverse world, as well as and ability to work cooperatively and effectively in multidisciplinary and diverse teams.
7	Professional Competency	Be a competent advanced-level graduate Respiratory Care Practitioner
8	Professional Competency	Demonstrate professional behaviors consistent with employer expectations of an advanced-level Respiratory Care Practitioner
9	Professional Competency	Demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to his/her role as an advanced-level Respiratory Care Practitioner.
10	Professional Competency	Demonstrate the technical/psychomotor skill necessary to fulfill his/her role as advanced-level Respiratory Care Practitioner
11	Professional Competency	Demonstrate the ability to successfully work as a healthcare team member, and to interact successfully with physicians and other health care professionals

POINTS OF NOTE:

- The QCC Respiratory Care Program coordinator and the Director of Clinical Education, both Registered Respiratory Therapists, possess a combined total of more than forty years of experience in the respiratory care profession. Both key faculty members are also Master's credentialed educators, with expertise in the specialty areas of adult critical care/emergency medical services, neonatal intensive care, and polysomnography (sleep studies).
- The QCC Respiratory Care Program is fully accredited by the Commission on Accreditation for Respiratory Care/Commission on Accreditation of Allied Health Educational Programs.
- The QCC Respiratory Care Program boasts a 100% * graduate employment rate. (* of those graduates seeking employment in respiratory care)
- QCC Respiratory Care Program graduates consistently score at or above the national mean on professional credentialing examinations.

Appendix C Respiratory Care Program Advisory Committee Meeting Minutes

Respiratory Care Program
Advisory Committee Meeting
May 10, 2006 9:00-10:30 am
HLC 239
Minutes

Present: Processors Lynda Nesbitt and Karen Kaletski-Dufault, QCC, Instructional Dean Jane June, QCC; Sue Keisner, Director, Respiratory Care, St. Vincent Hospital at Worcester Medical Center; Don Bellerive, QCC faculty/UMASS-Memorial; Amy Randall, QCC Faculty/UMASS-Memorial; Kris Duany (student rep. class of 2007), Steven McKinley (student rep. class of 2006)

- CoARC Site Visit Report: Details of the CoARC re-accreditation site visit (April 3-4, 2006) preliminary report were presented by Professor Nesbitt. (A copy of the initial report accompanies these minutes.)
- College Update: Dean June updated the Committee on current events at the College, including: the on-going Presidential search, which has been narrowed to two candidates; however the QCC Board of Trustees has yet to reach a decision between these two applicants (it is anticipated that the Board will select a replacement by June 2006); the development of a collaborative initiative between UMASS-Memorial Health Care and QCC to increase enrollment in select healthcare programs (e.g., Respiratory Care) by funding total educational expenses for UMASS-Memorial employees selected (via a competitive process) to participate in the initiative (four freshmen candidates- plus an alternate- will be selected for the Respiratory Care Program, with the expectation that these individuals will fill therapist positions at UMASS-Memorial upon graduation. The hospital will also pay all expenses for one individual already enrolled in the Respiratory Program, with the same post-graduate employment situation); the existence of the “Worcester Pipeline Collaborative”, a direct-link informational/educational program between QCC and select Worcester high schools (the focus of the Pipeline Collaborative is to introduce students- especially those who are variously disadvantaged and –or members of populations which are traditional under-represented in healthcare/sciences- to career opportunities in these areas. A total of ten spots in QCC healthcare programs are reserved for Pipeline students); and the possibility of addressing the need for a dedicated Respiratory Care program laboratory through the re-allocation of current space or the creative re-arrangement of currently existing/potential physical space. (No further details on this were available at the time of this meeting)
- New program brochure: Professor Kaletski-Dufault provided the Committee with a preview of the newly redesigned Respiratory Care Program informational brochure (see accompanying).
- New clinical site: Professor Nesbitt informed the Committee that the Program is investigating the possibility of using St. Elizabeth-Caritas hospital as a clinical site. A contract with that facility is currently under review by the college legal counsel; once contract language is finalized it will be possible to proceed with plans for a student rotation at St. Elizabeth’s
- Clinical/laboratory instructors: Professor Kaletski-Dufault reiterated that the Program is always looking for individuals interested in teaching clinical or laboratory sections. The Clinical Instructor position description was distributed; all qualified individuals are encouraged to apply.

Appendix C: Respiratory Care Program Advisory Committee Meeting Minutes

- Home care rotation; Professor Kaletski-Dufault noted that the Program is looking for a homecare site (having lost Lincare, Inc. due to internal personnel changes). Committee members were encouraged to contact either Professor Kaletski-Dufault or Professor Nesbitt with any suggestions, potential contacts, etc.
- Secure NBRC Clinical Simulation Self Assessment Examination: Professor Kaletski-Dufault informed the Committee that the Program will implement use of secure, NBRC Clinical Simulation Self Assessment Examination as of spring 2007. The Program currently utilizes the secure, NBRC CRT SAE and secure NBRC Written Registry SAE to gauge student readiness to attempt the actual credentialing examinations. Addition of the secure Clinical Simulation will provide Program faculty with a comprehensive overview of student preparedness for the credentialing process.
- Program goals and standards: The Committee reviewed Program goals and standards (see attached) in accordance with CoARC requirements. Goals and Standards as currently written were accepted by the Committee

There being no other business the meeting was adjourned at 10:30 am.

Respectfully submitted,

Lynda Nesbitt

Coordinator, Respiratory Care

Appendix C: Respiratory Care Program Advisory Committee Meeting Minutes

Respiratory Care Program
Advisory Board Meeting
December 12, 2007 9:00 AM
Minutes

Present: Professors Lynda Nesbitt and Karen Kaletski-Dufault QCC; Instructional Dean Jane June QCC; Donald Bellerive (UMMHC); Heather Juhascik (UMMHC); Jen Wright, Class of 2008

- Dean June provided an update on developments at the college, which include: redesign of the Respiratory Therapy laboratory, scheduled to begin as soon as the current semester's classes end, and anticipated to be completed prior to the start of the spring 2008 semester; the implementation of a competitive admissions process for the health programs, effective October 1, 2007. Dean June noted that the specifics of the new process (which were developed based upon input from the health programs faculty) will hopefully work to address the issue of high attrition rates in the health careers programs by selecting for students with demonstrated abilities in the areas of biology, English and math. It also noted that admission would continue to be rolling.
- Professor Nesbitt informed the Board that a new math course has been designed to meet the specific needs of students in the allied health programs. MAT 098 ("Allied Health Math") is in process through the College governance system, and is expected to be on the books possibly as early as summer, 2008.
- The Board discussed the issues which continue to surround use of UMMHC as a "shadowing" site for prospective applicants. Ms Juhascik noted that there might be the option of providing self-directed hospital orientation packages to those desiring to shadow, thereby facilitating the process. Ms Juhascik will e-mail Scott Leonard, Willis Chandler and Robbie Sundstrom to ascertain the feasibility of doing this.
- Professor Nesbitt presented the CRT credentialing results for the graduating class of 2007: 100% of the graduates has successfully attempted the exam. Results for the RRT exams are not yet available.
- Professor Nesbitt noted that Ralph Browning has resigned effective for the fall 2008 semester. Ralph has taught the PFT-based "Cardiopulmonary Technology" course for many years; with his resignation, the Program will be looking to hire a new instructor for the course. Professor Nesbitt will be sending a notice of vacancy/job description to Respiratory Care departments. Board members were asked to spread the word of this opening at their respective institutions.
- Program Goals and Standards (attached) were reviewed (as requires by CoARC), and were approved with no changes by the Board.

There being no more business, the meeting was adjourned at 9:30 am.

Respectfully submitted,

Lynda Nesbitt
Coordinator, Respiratory Care

Appendix C: Respiratory Care Program Advisory Committee Meeting Minutes

Respiratory Care
Advisory Board Meeting
March 28, 2008
Minutes

Present: Professors Lynda Nesbitt, Karen Kaletski-Dufault, QCC; Jane June, Instructional Dean QCC; Heather Juhascik, UMMHC; Richard Rosiello, MD, St. Vincent Hospital at Worcester Medical Center; Dennis Lafreniere, North Atlantic Medical Services

- Dean June updated the Board on the details of the new (effective Oct. 1, 2007) admissions process as it pertains to the Respiratory Care program (see attached for details of the process)
- The process whereby individuals seeking readmission to the program will be evaluated was also discussed. Students seeking readmission will be required to take (and pass) the TEAS exam in addition to meeting the criteria listed on the program's "Request for Readmission" form (see attached). There are two readmit spaces available in the entering freshman class each year; readmits to other semesters are accepted on a space available basis. Dean June noted that those currently seeking readmission for fall, 2008 will be exempted from having to take the TEAS exam, as the new readmission requirements have not yet been published in the College catalog. For this group, taking the exam is recommended, but not mandatory at this time. It was also noted that there is a "petition" process available to students who score within 5% points of the required minimum in any one category of the TEAS; these students will be able to request that a review of their scores, transcripts and any additional materials in support of their application for admission be conducted by the Program Coordinator. The Coordinator will then forward a decision on the acceptance of the student's TEAS scores/petition to the Director of the College's Health Careers Center and to the Admissions Office.
- Professor Kaletski-Dufault/Ms Juhascik updated the Board as to the status of the UMMHC-QCC affiliation. A cooperative effort between the college and the Medical Center which is designed both to increase program enrollment and to meet the Medical Center's need for Respiratory Therapists, the program is now in its third successful year. Medical Center sponsored students must meet both College and Medical Center requirements in order to qualify for admission to the program. There are four spaces in the incoming freshman class reserved for Medical Center-sponsored applicants each year.
- Professor Nesbitt informed the Board that Ralph Browning has resigned and will no longer be teaching RCP131 Cardiopulmonary Technology. William Ozga, Director of Respiratory Care at St. Vincent's Hospital has expressed an interest in teaching the course in the fall. Mr. Ozga is both a registered Respiratory Therapist, and a registered Pulmonary Function Technologist.
- The role of the Worcester Pipeline and the local health-magnet/vocational schools as a source of applicants to the program was discussed. Few (if any) individuals from these sources currently apply to Respiratory Care; however, it may be possible to stimulate a greater interest in the program among these student populations. It was suggested that one way to accomplish this may be to invite the Health Programs Coordinator at the Worcester Vocational Technical High School to join the program Advisory Board. Professor Nesbitt will follow up on this.

Appendix C: Respiratory Care Program Advisory Committee Meeting Minutes

- Professor Kaletski-Dufault updated the Board on the status of the Children's Hospital, and North Atlantic Medical rotations. Both are going well, and are providing the students with the opportunity to experience to specialty areas of practice. Mr. Lafreniere requested that he be provided with some formal feedback from the students who have been to North Atlantic Medical; Professor Kaletski-Dufault or Professor Nesbitt will administer a written survey to the students, and will forward the results to Mr. Lafreniere.
- The Board was informed that the newly renovated/equipped program laboratory has been in use since January, and is proving to be a valuable resource for both students and faculty. Professor Kaletski-Dufault noted that two sophomore students have been working as lab assistants in fulfillment of the mandatory service/project requirement for RCP 245 Respiratory Care Seminar, and that the students are proving to be a real help to lab faculty.
- No student or affiliate issues were presented for discussion.

There being no other business, the meeting was adjourned at 9:30 am.

Respectfully submitted,

Lynda Nesbitt

Coordinator, Respiratory Care

Appendix D: Respiratory Care Program 2007-2008 Advisory Committee

**Respiratory Care Program Advisory Committee Members
2007-2008**

Scott Leonard
Director of Respiratory Care
UMASS-Memorial Healthcare, phone: (508) 334-1000

Elaine Cooney Triola
North Atlantic Medical Services, phone: (800) 229-6267

Richard Rosiello
MD, Pulmonologist/Intensivist
St Vincent Hospital at Worcester Medical Center, phone: (508) 363-5000

Amy Randall
Lab Coordinator, QCC/Staff Educator
UMASS-Memorial Respiratory Care Department, phone: (508) 334-1000

Scott Maclean
Director of Respiratory Care
Kindred Hospital Parkview of Central MA, phone: (508) 892-6000

Lynda Nesbitt
Respiratory Care Program Coordinator
QCC, phone: (508) 854-4398

Karen Kaletski Dufault
Director of Clinical Education, Respiratory Care Program
QCC, phone: (508) 854-2752

Jane June
Dean of Instruction for Healthcare
QCC, phone: (508) 854-4517

William Ozga
Director of Respiratory Care and Neurodiagnostic Services
St Vincent Hospital at Worcester Medical Center, phone: (508) 363-5000

Joyce Rossignol
Organization Development Coordinator
UMASS-Memorial Healthcare, phone: (508) 334-1000

Respiratory Care Program freshman and sophomore student representatives

Appendix E: Employer Survey

EMPLOYER SURVEY

NAME OF COLLEGE: QCC
RESPIRATORY CARE PROGRAM
CoARC Program ID#: 200037

The purpose of this survey is to help faculty evaluate the Program's success in preparing graduates to function as competent respiratory therapists. Compiled data from all returned surveys will be used to evaluate program quality; data from individual surveys will be held in strict confidence. The CoARC requests that this survey be completed by the graduate's immediate supervisor.

BACKGROUND INFORMATION:

Name of Graduate: _____
Length of employment at time of evaluation: _____ years and _____ months.
Name (if different from that on the cover): _____
Eligibility/Credential Status (check all that apply):
 CRT eligible CRT CPFT RPFT RPSGT
 RRT eligible RRT NPS Other _____

INSTRUCTIONS: Consider each item separately and rate it independently of all others. Circle the rating that indicates the extent to which you agree with each statement. Please do not skip any rating.
5 = Strongly Agree 4 = Generally Agree 3 = Neutral (acceptable) 2 = Generally Disagree 1 = Strongly Disagree

I. KNOWLEDGE BASE (Cognitive Domain)

THE GRADUATE:

- | | | | | | |
|---|---|---|---|---|---|
| A. Has the respiratory care knowledge base required to function effectively | 5 | 4 | 3 | 2 | 1 |
| B. Has the general medical knowledge base required to function effectively | 5 | 4 | 3 | 2 | 1 |
| C. Recognizes, efficiently selects and accurately interprets pertinent clinical information from medical records and physical findings. | 5 | 4 | 3 | 2 | 1 |
| D. Recommends appropriate diagnostic and therapeutic interventions based on physiological data and patient assessment information. | 5 | 4 | 3 | 2 | 1 |
| E. Thinks effectively and makes sound clinical judgments. | 5 | 4 | 3 | 2 | 1 |

Comments: _____

II. CLINICAL PROFICIENCY (Psychomotor Domain)

THE GRADUATE:

- | | | | | | |
|---|---|---|---|---|---|
| A. Is proficient in all clinical skills required by the job. | 5 | 4 | 3 | 2 | 1 |
| B. Can accurately and efficiently perform an overall patient assessment. | 5 | 4 | 3 | 2 | 1 |
| C. Is proficient in all therapeutic procedures and modalities required by the job. | 5 | 4 | 3 | 2 | 1 |
| D. Competently performs and assesses the validity of all diagnostic procedures required by the job. | 5 | 4 | 3 | 2 | 1 |

Comments: _____

Appendix E: Employer Survey

III. BEHAVIORAL SKILLS (Affective Domain)

THE GRADUATE:

A. Has effective oral communication skills in the clinical setting.	5	4	3	2	1
B. Has effective written communication skills in the clinical setting	5	4	3	2	1
C. Behaves in an ethical and professional manner.	5	4	3	2	1
D. Functions effectively as a member of the healthcare team.	5	4	3	2	1
E. Accepts supervision and works effectively with supervisory personnel.	5	4	3	2	1
F. Is self-directed and responsible for his/her own actions.	5	4	3	2	1
G. Arrives to work prepared and on time	5	4	3	2	1
H. Contributes to a positive environment in the department	5	4	3	2	1
I. Displays respect for beliefs and values of all persons regardless of cultural background, religion, age or lifestyle	5	4	3	2	1

Comments: _____

IV. GENERAL INFORMATION (Circle yes or no)

REGARDING THE GRADUATE

A. Has attained the CRT credential	Yes	No
B. Has attained the RRT credential	Yes	No
C. Is a member of the state society for respiratory care.	Yes	No
D. Is a member of the American Association for Respiratory Care.	Yes	No
E. Participates at least annually in continuing education activities.	Yes	No

REGARDING THE EMPLOYER:

A. Do you require employees to take and pass the NBRC Certification exam as a condition of continued employment?	Yes	No
B. Do you require eligible employees to take and pass the NBRC Registry exams as a condition of continued employment?	Yes	No
C. Do you provide incentives for employees to take and pass the NBRC Certification exam? Yes No		
D. Do you provide incentives for employees to take and pass the NBRC Registry exams?	Yes	No
E. Do you impose a deadline before which new employees must take and pass the NBRC Certification exam?	Yes	No
F. Do you impose a deadline before which eligible employees must take and pass the NBRC Registry exams?	Yes	No

If you answered NO to any of the above questions, please explain:

V. OVERALL RATING OF THE GRADUATE:

Please rate and comment on the OVERALL quality of this program's graduate:

5 = Excellent 4 = Very Good 3 = Good 2 = Fair 1 = Poor

Comments: _____

Appendix F: Graduate Survey

GRADUATE SURVEY

Sponsoring Institution/Consortium Name: _____

Respiratory Care Program Name: _____

CoARC Base Program ID#: _____

CoARC PSG add-on, Distributed Option, or AEDF Program ID# (if applicable): _____

NOTE: Completion of this survey is required as part of outcomes assessment by the program's accreditation body (CoARC).

The purpose of this survey is to help faculty evaluate the Program's success in preparing graduates to function as competent respiratory therapists. Compiled data from all returned surveys will be used to evaluate program quality; data from individual surveys will be held in strict confidence.

BACKGROUND INFORMATION:

Job Title: _____ Current Annual Salary (optional) _____

Length of employment at time of evaluation: _____ years and _____ months.

Name (if different from that on the cover): _____

Eligibility/Credential Status (check all that apply):

CRT eligible CRT CPFT RPFT RPSGT
 RRT eligible RRT NPS Other: _____

INSTRUCTIONS: Consider each item separately and rate it independently of all others. Circle the rating that indicates the extent to which you agree with each statement. Please do not skip any rating.
5 = Strongly Agree 4 = Generally Agree 3 = Neutral (acceptable) 2 = Generally Disagree 1 = Strongly Disagree

I. KNOWLEDGE BASE (Cognitive Domain)

THE PROGRAM:

- A. Taught me the professional knowledge base required to function effectively on the job. 5 4 3 2 1
- B. Taught me the general medical knowledge base required to function effectively on the job. 5 4 3 2 1
- C. Taught me to interpret pertinent clinical information from medical records and physical findings. 5 4 3 2 1
- D. Prepared me to recommend appropriate therapeutic interventions based on physiological data and physical findings. 5 4 3 2 1
- E. Trained me to make sound clinical judgments. 5 4 3 2 1

Comments: _____

II. CLINICAL PROFICIENCY (Psychomotor Domain)

THE PROGRAM:

- A. Helped me become proficient in the clinical skills required on the job. 5 4 3 2 1
- B. Taught me to perform patient assessment accurately and efficiently. 5 4 3 2 1
- C. Taught me to perform the therapeutic procedures and modalities required on the job. 5 4 3 2 1
- D. Taught me to perform the diagnostic procedures required on the job. 5 4 3 2 1

Comments: _____

Appendix F: Graduate Survey

III. BEHAVIORAL SKILLS (Affective Domain)

THE GRADUATE:

A. Has effective oral communication skills in the clinical setting.	5	4	3	2	1
B. Has effective written communication skills in the clinical setting	5	4	3	2	1
C. Behaves in an ethical and professional manner.	5	4	3	2	1
D. Functions effectively as a member of the healthcare team.	5	4	3	2	1
E. Accepts supervision and works effectively with supervisory personnel.	5	4	3	2	1
F. Is self-directed and responsible for his/her own actions.	5	4	3	2	1
G. Arrives to work prepared and on time	5	4	3	2	1
H. Contributes to a positive environment in the department	5	4	3	2	1
I. Displays respect for beliefs and values of all persons regardless of cultural background, religion, age or lifestyle	5	4	3	2	1

Comments: _____

IV. GENERAL INFORMATION (Circle yes or no)

REGARDING THE GRADUATE

A. Has attained the CRT credential	Yes	No
B. Has attained the RRT credential	Yes	No
C. Is a member of the state society for respiratory care.	Yes	No
D. Is a member of the American Association for Respiratory Care.	Yes	No
E. Participates at least annually in continuing education activities.	Yes	No

REGARDING THE EMPLOYER:

A. Do you require employees to take and pass the NBRC Certification exam as a condition of continued employment?	Yes	No
B. Do you require eligible employees to take and pass the NBRC Registry exams as a condition of continued employment?	Yes	No
C. Do you provide incentives for employees to take and pass the NBRC Certification exam? Yes No		
D. Do you provide incentives for employees to take and pass the NBRC Registry exams?	Yes	No
E. Do you impose a deadline before which new employees must take and pass the NBRC Certification exam?	Yes	No
F. Do you impose a deadline before which eligible employees must take and pass the NBRC Registry exams?	Yes	No

If you answered NO to any of the above questions, please explain:

V. OVERALL RATING OF THE GRADUATE:

Please rate and comment on the OVERALL quality of this program's graduate:

5 = Excellent 4 = Very Good 3 = Good 2 = Fair 1 = Poor

Comments: _____

Appendix G: Library Holdings

Alden Library Journal Titles for	Coverage Begins - Ends			
Respiratory Care Prepared by Dale LaBonte November 2008	Print	Full Text Online Direct from Publisher	Academic Search Premier	Academic OneFile
AARC Times (American Assn. for Respiratory Care)	1991			
American Journal of Respiratory and Critical Care Medicine	1994	EBSCOhost EJS	1997	
Chest	1992-2004		2000-2005	1989-2006
Clinical Medicine. Circulatory, Respiratory, And Pulmonary Medicine		Dir. Of Open Access Journals	2000	
Current Medical Literature: Respiratory Medicine			2003	
Fire Rescue	1997			
FOCUS: Journal for Respiratory Care and Sleep Medicine				2000
Heart and Lung	1988	EBSCOhost EJS	1995	
Hospitals and Health Networks	1993		1995	
JAMA (Journal of the American Medical Association)	1998	EBSCOhost EJS	1998	
JEMS (Journal of Emergency Medical Services)	1991	EBSCOhost EJS	2001	
Journal of Allied Health	2006	EBSCOhost EJS	2001	
Journal of Best Practices in Health Professions Diversity	2007			
Journal of Respiratory Diseases				1999
Lung			1997 (-1 year embargo)	1997-2006
New England Journal of Medicine	1994			
Open Respiratory Medicine Journal		Dir. Of Open Access Journals	2000	
Respiratory Care	1985	EBSCOhost EJS	1997	2007
Respiratory Care Manager				2007
Respiratory Research		Dir. of Open Access Journals	2000	2007
Respiratory Therapeutics Week				2003
Respirology			1999 (-1 year embargo)	

Appendix G: Library Holdings

Alden Library Online Resources for Respiratory Care	
Databases	E-Books
Academic Search Premier	
Academic OneFile	Gale Virtual Reference Center (Encyclopedias)
Anatomy.TV	Gale Encyclopedia of Alternative Medicine 2nd ed., 4v, 2005
CINAHL	Gale Encyclopedia of Medicine, 3rd ed. 3rd ed., 5v, 2006
Expanded Academic ASAP	Stat!Ref
Health Reference Center Academic	The 5-Minute Clinical Consult,- 16th Ed., 2008
Heath Source: Consumer Edition	AHFS Drug Information 2008
Health Source: Nursing/Academic	Guide to Culturally Competent Health Care, 2005
Medline	Stedman's Medical Dictionary

Respiratory Care Non-print materials in the Alden Library

CALL #(ITEM)

VOLUME TITLE
IMPRINT

RA644.T7 T79 1994

TB or not TB [videorecording] : new guidelines for prevention and treatment / AJN, American Journal of Nursing Company produced by Envision, Inc.
New York, NY : American Journal of Nursing Co., c1994.

RA644.T7 T79 1994 Guide

TB or not TB [videorecording] : new guidelines for prevention and treatment / AJN, American Journal of Nursing Company produced by Envision, Inc.
New York, NY : American Journal of Nursing Co., c1994.

RA645.5.A5 1993

AMBU CPR training tape using AMBU man training manikin with new voic interactive prompter [videorecording]
AMBU, Inc. 1993

RC311.8.T82 2001

Tuberculosis: epidemiology, risk assessment & diagnosis [videorecording].
[Carrollton, Tex.] : PRIMEDIA Workplace Learning, c2001.

RC731.A88 1978

Assessment of the respiratory patient [slide]
[Buffalo, N.Y.] : Communications in Learning, [197-?]

RC731.R311 1980

Respiratory system [slide] / Frank Netter.
Newark, N.J. : CIBA-GEIGY Corp., 1980.

RC733.D54 1972

Diagnosis of respiratory diseases. [Slide]
University of Michigan. Released by Medical Center Media Library, Made by Medical Center Independent Study Unit. 1972
Diagnosis of respiratory diseases. [Slide]
University of Michigan. Released by Medical Center Media Library, Made by Medical Center Independent Study Unit. 1972

Appendix G: Library Holdings

RC733.S31 1991

Speaking the language of respiratory care [sound recording] : listen and learn with the talking dictionary / California College for Health Sciences.
National City, CA : California College for Health Sciences, 1991.

RC734.R3 R32 1975

Thursday, November 06, 2008

CALL #(ITEM)

**VOLUME TITLE
IMPRINT**

Radiography and the respiratory therapist [slide] / School of Respiratory Therapy Technology, Erie Community College North, in cooperation with the Lakes Area Regional Medical Program.
[Buffalo] : Communications in Learning, [1975]

Radiography and the respiratory therapist [slide] / School of Respiratory Therapy Technology, Erie Community College North, in cooperation with the Lakes Area Regional Medical Program.
[Buffalo] : Communications in Learning, [1975]

RC735.I5 A8736 1992

Post-op pneumonia [machine-readable data file] / written by David Assmann.
Edwardsville, KS : Medi-Sim, c1992

RC735.I5 A8752

Premature neonate Computer assisted instruction for respiratory care and pulmonary function education
Edwardsville, Kans. : Medi-Sim Computer Assisted Instruction, Inc. c1992.

RC735.I5 A8768 1992

Myasthenia gravis [computer file] / written by David Assmann, Jane Reynolds.
Edwardsville, Kan. : Medi-Sim, Inc., c1992.

RC735.I5 A8772 1992

Near drowning [computer file] / written by David Assmann, Jane Reynolds.
Edwardsville, Kan. : Medi-Sim, Inc., c1992.

RC735.I5 C18 1997

Care of chest tubes [electronic resource] / University of Calgary, Faculty of Nursing.
Toronto, Ont. Niagara Falls, N.Y. : Medical Audio Visual Communications, c1997.

RC735.I5 O994 2002

Oxygenation [videorecording] / Vector Communications.
St. Louis, Mo. : Mosby, c2002.

RC735.P58 A61 1979

Aspects of chest physical therapy. [Slide]
Lexington, Mass. : Video Digest, c1979.

Aspects of chest physical therapy. [Slide]
Lexington, Mass. : Video Digest, c1979.

RC735.P58 A8 1979

Mod.1 Aspects of chest physical therapy. [Slide]
Lexington, Mass. : Video Digest, c1979.

Appendix G: Library Holdings

Thursday, November 06, 2008

CALL #(ITEM)

VOLUME **TITLE**
 IMPRINT

Mod.II,III,IV Aspects of chest physical therapy. [Slide]
Lexington, Mass. : Video Digest, c1979.

RC735.R48 F1 1989

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 II 1989

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 P1 1985

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 P2 1989

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 R1 1989

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 T 1987

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 V1 1989

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 V2 1989

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC735.R48 W3 1985

Puritan/Bennett 7200 series [ventilators] [videorecording] / Puritan/Bennett Corporation.
[S.l.] : Puritan-Bennett Corporation, [198-]

RC756.P738 1974

Thursday, November 06, 2008

CALL #(ITEM)
VOLUME **TITLE**
 IMPRINT

The Pneumonias. [videorecording] / Felix A. Sarubbi, Joseph S. Pagano, Neil Chafetz.
New York : Medcom, c1974-1976.

Appendix G: Library Holdings

The Pneumonias. [videorecording] / Felix A. Sarubbi, Joseph S. Pagano, Neil Chafetz.
New York : Medcom, c1974-1976.

RC76.3.A71 1998

Auscultation of breath sounds [computer file].
Baltimore, MD : Williams & Wilkins, c1998.

RC776.O3 S838 2002

Suctioning [videorecording] / Vector Communications.
St. Louis, Mo. : Mosby, c2002.

RF517.L579 1996

Airway Cam video series. Volume 1, Orotracheal intubation [videorecording] / produced, written and directed by M. Levitan, co-produced by Michael S. Higgins.
Wayne, PA : Airway Cam Technologies, Inc., 1996.

RF517.T67 1986

Tracheostomy care [videorecording] / AJN Videos.
New York, NY : American Journal of Nursing, Educational Services Division, 1986.

RF517.T7 1988

Airway management [videorecording] Tracheostomy care, tube change, and artificial airway cuff management / Medcom, Inc.
Cypress, CA : Medcom, 1988.

RF517.T73 2006

- pt.1 Tracheostomy [videorecording] : basic care and advanced care.
Irvine, CA : Concept Media , c2006.
- pt.2 Tracheostomy [videorecording] : basic care and advanced care.
Irvine, CA : Concept Media , c2006.
- pt.3 Tracheostomy [videorecording] : basic care and advanced care.
Irvine, CA : Concept Media , c2006.
- pt.4 Tracheostomy [videorecording] : basic care and advanced care.
Irvine, CA : Concept Media , c2006.

RM161.H883 1976

Thursday, November 06, 2008

CALL #(ITEM)

VOLUME TITLE IMPRINT

- Mod.1 Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center.
Bowie, Md. : Robert J. Brady Co., 1976.
- Mod.1 Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center.
Bowie, Md. : Robert J. Brady Co., 1976.
- Mod.1-8 Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center.
Bowie, Md. : Robert J. Brady Co., 1976.
- Mod.2 Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center.
Bowie, Md. : Robert J. Brady Co., 1976.

Appendix G: Library Holdings

Mod.2	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.2	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.3	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.3	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.3	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.4	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.4	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.4	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.5	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.5	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.5	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.

Thursday, November 06, 2008

CALL #(ITEM)

VOLUME TITLE IMPRINT

Mod.6	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.6	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.6	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.7	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.7	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.7	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.8	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center. Bowie, Md. : Robert J. Brady Co., 1976.
Mod.8	Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center.

Appendix G: Library Holdings

Bowie, Md. : Robert J. Brady Co., 1976.

Mod.8 Humidity and aerosol therapy. [Slide] / University of Kansas Medical Center.

Bowie, Md. : Robert J. Brady Co., 1976.

RM735.5.B36 1995

Current concepts in respiratory care. Care of the mechanically ventilated patient [computer file] / written by Judith J. Barrows, Albert A. Barrows.
Baltimore, MD : Medi-Sim, 1995.

RT48.T4 1985

Temperature, pulse, respiration [videorecording] / created and produced by Medcom, Inc.
Garden Grove, Calif. : Medcom, 1985.

Temperature, pulse, respiration [videorecording] / created and produced by Medcom, Inc.
Garden Grove, Calif. : Medcom, 1985.

Appendix H: Respiratory Care Program Revised Curriculum

RESPIRATORY CARE - Associate in Science

PROPOSED

Course Title	Course #	Offered	Plan to Take	Grade	Credits	Prerequisites
Cluster A						
Anatomy & Physiology I	BIO 111	F/S/SU			4	BIO 101 or AP Biology. Coreq-ENG 101
English Composition & Literature I	ENG 101	F/S/SU			3	ENG 100
Fundamentals of Respiratory Care I	RCP 103	F			2	Coreq-RCP 121
Medical Lectures I	RCP 111	F			3	
Clinical I ²	RCP 121	F			3	Coreq-RCP 103
Pharmacology ³	RCP 141	F			3	Coreq- RCP 111
Cluster B						
Anatomy & Physiology II	BIO 112	F/S/SU			4	BIO 111
English Composition & Literature II	ENG 102	F/S/SU			3	ENG 101
Physics for Respiratory Care	PHY 103	S			2	MAT 095
Fundamentals of Respiratory Care II	RCP 104	S			2	RCP 103, RCP 121. Coreq-RCP 122
Medical Lectures II	RCP 112	S			3	RCP 111
Clinical II	RCP 122	S			3	RCP 103, RCP 121, RCP 141. Coreq-RCP 104
Cluster C						
Critical Care I Laboratory	RCP 230	SU			1	BIO 112
Cluster D						
Introduction to Psychology or	PSY 101	F/S/SU				ENG 100 or approp place score
Psychology of Interpersonal Relations	PSY 118	F/S/SU			3	Coreq-ENG 100 or approp place score
Medical Lectures III ¹	RCP 113	F			3	BIO 112, RCP 112
Cardiopulmonary Technology	RCP 131	F			2	BIO 112
Clinical III	RCP 221	F			5	BIO 112, RCP 122
Critical Care II ⁴	RCP 231	F			3	RCP 230
Elective	---				3	
Cluster E						
Medical Microbiology	BIO 232	F/S/SU			4	BIO 101 or BIO 111
Bioethics	IDS 215	S			3	Coreq-ENG 100 or approp place score
Medical Lectures IV	RCP 114	S			3	BIO 112, RCP 113
Clinical IV ^{5,6}	RCP 222	S			5	BIO 112, RCP 221
Pediatric and Neonatal Respiratory Care	RCP 243	S			2	BIO 112
Respiratory Care Seminar	RCP 245	S			2	BIO 112. Coreq-RCP 222
Total credits required					74	

The Degree:
Associate in Science

The Program:
Respiratory Care

The Next Step:
Graduates are eligible to take credentialing examinations offered by the National Board for Respiratory Care, Inc/ Apply for MA licensure with the MA.D.P.H.

Program Coordinator:
Lynda Nesbitt (508) 854-4398
lyndan@qcc.mass.edu

Admission Requirements:
Please see Admission process in the program introduction.

Program Footnotes:
To be eligible to remain in the Program, a student must achieve a grade of "C" or higher in all Respiratory Care (RCP) courses and in PHY 103, BIO 111, BIO 112 and BIO 232. In addition, the student must satisfy all course and Program requirements including regulations on conduct and attendance in order to remain in the Program. For more information, see Program introduction

CORI/SORI:
Required of all accepted students prior to beginning clinical experiences.

Technical Performance Standards:
Prior to application to this program, please review the Technical Performance Standards requirements on pages 165 - 167.

Appendix I: Outcomes Assessment Thresholds

Evaluation System	Cut Score	Threshold
CRT Credentialing Success	NBRC passing score.	≥ 80% of total number of graduates obtaining NBRC CRT credential (3-year average)
RRT Credentialing Success	NBRC passing score.	≥ 50% of total number of graduates obtaining NBRC RRT credential (3-year average)
Comprehensive Written RRT Self-Assessment Exam (CWRRT SAE)	CoARC passing score of 55%	≥ 80% of cohort meeting the cut score on NBRC CWRRT SAE (most recent one year results)
Retention/Attrition	Student is no longer enrolled in the program and is not expected to return (attrition)	≤ 30% attrition of the total number of students in the enrollment cohort. (3-year average)
Positive (Job) Placement	Employed full or part-time in a related field and/or continuing his/her education and/or serving in the military	≥ 70% positive placement (3-year average)
Graduate Survey - Success (for each learning domain)	A rating of 3 or higher on a 5-point Likert scale for each item/statement.	Each item/statement has at least 80% of the responses rated 3 or higher (within each learning domain).
Graduate Survey – Participation		≥ 50% of the graduates have returned surveys (3-year average)
Employer Survey - Success (for each learning domain)	A rating of 3 or higher on a 5-point Likert scale for each item/statement.	Each item/statement has at least 80% of the responses rated 3 or higher (within each learning domain).
Employer Survey – Participation		≥ 50% of the employers have returned surveys (3-year average)

Appendix J: QCC Respiratory Care Program Goals and Standards Fall 2007

QCC Respiratory Care Program
Goals and Standards
Fall 2007

Goal: Upon completion of the Program, the graduate will be a competent advanced level Respiratory Therapist

Standard: Upon completion of the Program, students will demonstrate professional behavior consistent with employer expectations for advanced respiratory therapists. (Affective domain)

Standard: Upon completion of the Program, students will demonstrate the ability to comprehend, apply and evaluate clinical information relevant to their roles as advanced level respiratory therapists. (Cognitive domain)

Standard: Upon completion of the Program, students will demonstrate the technical proficiency in all skills necessary to fulfill their roles as advanced level respiratory therapists. (Psychomotor domain)