

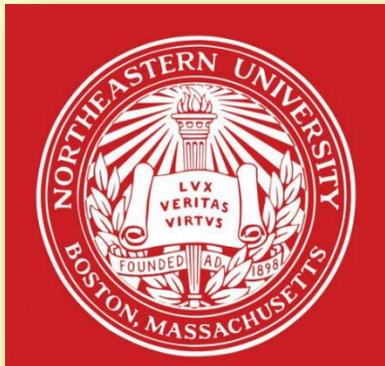
# The Coalition Chronicle

Coalition for Baccalaureate and Graduate Respiratory Therapy Education

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## Spotlight Article

### Northeastern University

**Thomas A. Barnes, EdD, RRT, FAARC**  
**Professor Emeritus of Cardiopulmonary Sciences**  
**Master of Science in Respiratory Care Program**  
**Graduate Certificate Program in**  
**Respiratory Specialty Practice**  
**College of Professional Studies**  
**Boston, Massachusetts**

### Overview

Affordable Care Act, recent technological advances, and a growing elderly population are escalating the need for skilled respiratory therapists. To be successful, today's respiratory care leaders must be skilled educators, department managers, respiratory care specialists, case managers and research coordinators. In response, Northeastern University College of Professional Studies has developed the *Master of Science in Respiratory Care Leadership*. Created for practicing respiratory therapists, this master's degree in respiratory care incorporates an action-learning approach that builds leadership competencies and advances the student's clinical knowledge. Seven core respiratory care courses cover areas such as advanced cardiopulmonary physiology, development of clinical practice guidelines and protocols, respiratory therapist education and applied research design.

A new *Respiratory Specialty Practice Concentration* has recently been approved to meet the need for registered respiratory therapists (RRTs) to document their competency in specialty practice areas, e.g., adult critical care, neonatal and pediatric critical care, asthma and COPD wellness coordination and education, and pulmonary function technology. The goal of the *Respiratory Specialty Practice Concentration* is to help students working in one or more specialty practice areas reach a competency level where they can become NBRC board certified respiratory specialists in Adult Critical Care (ACCS), Neonatal Pediatric Specialist (NPS), and

Registered Pulmonary Function Technologist (RPFT). Another goal is to prepare students to pass the National Asthma Educator Certification Board examination to become board certified as an Asthma Educator (AE-C). (See curriculum requirements below on page 6).

Concurrent with the launch of the new concentration next fall, a *Graduate Certificate Respiratory Specialty Practice* program will be offered. The Graduate Certificate Program is designed for RRTs working in specialty areas who wish to begin work towards a graduate degree



in respiratory care but wish to start by completing clinically-related courses that will help them prepare for NBRC specialty examinations to document their advanced competency. Upon completion of Graduate Certificate Program in Respiratory Specialty Practice, the courses transfer to the Master of Science in Respiratory Care Leadership (MSRCL) Program and fulfills the concentration requirement.

The Master of Science in Respiratory Care Leadership Program requires completion of 45-46 quarter hours depending on the

selected concentration. Seven core respiratory courses, four to five concentration courses, and two leadership courses are required for the MS degree (see curriculum on page 5). The four concentrations available are: Respiratory Specialty Practice (September 2016), Adult and Organizational Learning, Clinical Trial Design, and Health Management. All courses for the Master's and Graduate Certificate programs are taught online.

## **Program History**

Respiratory care education at Northeastern University dates back to 1967 when Jimmy A. Young started an Inhalation Therapy Program that awarded an associate's degree based in University College (later to become the College of Professional Studies). In 1970, Jimmy left Northeastern to become the director of the Respiratory Care Department at Massachusetts General Hospital. Jimmy Young was President of the AARC in 1973, and a member of the NBRC Executive Committee when he passed away unexpectedly in 1975. In recognition of his dedication and service to the respiratory care profession, the AARC awards the Jimmy A. Young Medal each year, the highest award given. Evelyn Cassara, BSN, RN, RRT became the RT program director

in 1971 and the Program moved to the College of Pharmacy and Allied Health. In 1976, Tom Barnes, EdD, RRT, FAARC became the program director and under his leadership a Bachelor of Science degree in respiratory therapy was established in 1978. The program continued to offer



both associate and baccalaureate degrees until 1982 when a decision was made to only offer the BSRT degree. By 1990, the College of Pharmacy and Allied Health had changed its name to Bouve College

of Health Sciences and the major was changed to Cardiopulmonary Sciences in recognition of two new programs added to the department, a Master's degree in perfusion technology and a BS degree in cardiovascular technology. In 2007, Bouve College of Health Sciences, decided to only offer health science programs that offered graduate degrees. Concurrently, the RT faculty moved to the College of Professional Studies where an online Master of Science in Respiratory Care Leadership (MSRCL) Program was established under the direction of Scott Stanley, EdD, RRT. The first Master of Science Respiratory Care Leadership degree was awarded in 2009 and to date 70 RRTs have been graduated from the program (2009-2015). Dr. Tom Barnes assumed leadership of the MSRCL Program in 2011. Currently, 56 students from 21 states and Singapore are enrolled in the Program with 14 scheduled to graduate in the Class of 2016. There are 20 new students who began the Master's program in the 2016 academic year. The average student completes the program in two years, with some taking 3 to 4 years because of a financial, family or job-related event that requires time off from their graduate work or the need to only complete one course each quarter.

## **Program Objectives**

- Develop and evaluate strategies for appointment to leadership positions.
- Prepare and evaluate 3, 5, and 10-year plans for career advancement and for professional service.
- Evaluate the leadership challenges facing the respiratory care profession.
- Describe and interpret statistical tests applied to medical research data.
- Apply evidence-based medicine and advanced cardiopulmonary physiology concepts to clinical practice.
- Review and evaluate the level of evidence and quality of published research.
- Analyze and apply research-based evidence.
- Evaluate respiratory therapists' evolving professional roles and responsibilities.
- Compare and contrast the political and economic factors that affect the profession of respiratory care.

- Understand how to complete systematic state-of-the-art reviews to summarize research evidence based on a thorough literature search and critical appraisal of individual studies.
- Understand how to be an effective RT department manager/supervisor, or a program director/director of clinical education for BSRT or MSRT Programs.
- Prepare clinical practice guidelines and evidence-based respiratory care protocols.
- Design study protocols and conduct applied research in respiratory care.
- Prepare research abstracts and manuscripts for submission to refereed science journals.

## Student/Alumni Profile

This program is well suited for individuals who wish to assume a managerial position within a healthcare organization or teach respiratory therapy in an academic setting or assume roles as clinical specialists or become coordinators of respiratory care research. Students must be registered respiratory therapists (RRTs) and have earned an undergraduate degree—typically a bachelor’s degree in respiratory therapy or an associate degree in respiratory therapy combined



L-R, Karsten Roberts, MSc, RRT-ACCS, '14; Ryan Sharkey, MSc, RRT-NPS, '15; Dan Rowley, MSc, RRT-ACCS, NPS, RPFT, FAARC, '12

with a bachelor’s degree in health sciences (or its equivalent). They typically are working full-time in acute care hospitals as managers/supervisors or as staff RRTs assigned to adult, pediatric or neonatal ICUs. Several students usually are faculty members for associate or baccalaureate RT programs. They are AARC and CoBGRTE active members and volunteer for AARC affiliates or for AARC or CoBGRTE at the national level. The program is 100% online and allows students to be employed full-time while completing their Master’s degree.

The patient is brought into weekly discussion boards and there is a great deal of shared learning based on how respiratory care is administered in different regions of the country. Students and alumni typically meet at the AARC Congress and Summer Forum to support each other during abstract presentations and first-time lectures, and enjoy the interaction with their fellow graduate students. Several students have participated in AARC PACT activities and have made the trip to Washington, D.C. to lobby their representatives in Congress. There are students enrolled in the MSRCL Program that have served as members of the AARC Board of Directors, AARC affiliate president and as affiliate representatives to the AARC House of Delegates. This provides a great resource for other graduate students on how to become actively involved with their professional association.

## Master of Science Degree Curriculum

The Master of Science in Respiratory Care Leadership requires completion of 45-46 quarter hours dependent on the concentration selected. There are seven core respiratory courses required (see below). All students complete two elective leadership courses with the options shown below. Also, a concentration must be selected from four available: Adult and Organizational Learning, Clinical Trial Design, Health Management or Respiratory Specialty Practice (available September 2016).

### Required Respiratory Care Courses (24 q.h.)

RPT 7200	Advanced Cardiopulmonary Physiology	3 q.h.
RPT 7205	The Evolving Roles of Respiratory Care Professionals	3 q.h.
RPT 7210	Research Design	4 q.h.
RPT 7215	Applied Research in Respiratory Care	3 q.h.
RPT 6970	Seminar	3 q.h.
RPT 7300	Development of Clinical Practice Guidelines and Respiratory Care Protocols	4 q.h.
RPT 7302	Respiratory Therapist Education	4 q.h.

### Required Leadership Courses (6 q.h.)

*Choose two of the following courses:*

LDR 6100	Developing Your Leadership Capability	3 q.h.
LDR 6110	Leading Teams	3 q.h.
LDR 6135	Ethical Leadership	3 q.h.
LDR 6140	Strategic Leadership (should be taken as the last course)	3 q.h.

### Adult and Organizational Learning Concentration (16 q.h.)

*Choose four of the following courses:*

EDU 6051	Culture, Power, Equity, and Influence	4 q.h.
EDU 6201	Landscape for Higher Education	4 q.h.
EDU 6202	Faculty, Curriculum, Academic Community	4 q.h.
EDU 6221	Enrollment, Retention, Graduation, Success	4 q.h.
EDU 6319	How People Learn	4 q.h.
EDU 6323	Technology as a Medium of Learning	4 q.h.
EDU 6447	Demographics of Higher Education	4 q.h.

## Clinical Trial Design Concentration (16 q.h.)

Choose four of the following courses:

BTC 6210	Human Experimentation: Methodological Issues Fundamentals	4 q.h.
BTC 6211	Validation and Auditing of Clinical Trial Information	4 q.h.
BTC 6213	Clinical Trial Design Optimization and Problem Solving	4 q.h.
BTC 6260	The Business of Medicine and Biotechnology	4 q.h.
RGA 6100	Introduction to Drug and Medical Device Regulation	4 q.h.
RGA 6202	Medical Device Development: A Regulatory Overview	4 q.h.
RGA 6205	Emerging Trends and Issues in the Medical Device Industry	4 q.h.

## Health Management Concentration (15 q.h.)

Choose five of the following courses:

HMG 6110	The Organization, Administration, Financing, and History of Health Care	3 q.h.
HMG 6120	Human Resource Management in Health Care	3 q.h.
HMG 6130	Healthcare Strategic Management	3 q.h.
HMG 6140	Principles of Population-Based Management	3 q.h.
HMG 6160	Healthcare Information Systems Management	3 q.h.
HMG 6170	Health Law, Politics, and Policy	3 q.h.
NPM 6120	Financial Management for Nonprofit Organizations	3 q.h.
NPM 6125	Promoting Nonprofit Organizations	3 q.h.
NPM 6130	Fund-Raising/Development for Nonprofit Organizations	3 q.h.

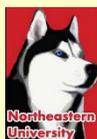
## Respiratory Specialty Practice Concentration (16 q.h.)

Required Courses 8 q.h.

<b>RSP 7400</b>	Pulmonary Diseases and Disorders	4 q.h.
<b>RSP 7401</b>	Cardiopulmonary Assessment and Diagnostics	4 q.h.

Elective Courses 8 q.h. (select two)

<b>RSP 7402</b>	Adult Critical Care	4 q.h.
<b>RSP 7403</b>	Neonatal and Pediatric Care	4 q.h.
<b>RSP 7404</b>	Pulmonary Wellness Education and Coordination	4 q.h.
<b>RSP 7405</b>	Development of Patient Management Plans	4 q.h.



## Graduate Certificate Program – Segway to a MSRC Degree

**T**he *Respiratory Specialty Practice Concentration* is designed to meet the need for registered respiratory therapists (RRTs) to increase their competency in one or more specialty practice areas: adult critical care, neonatal and pediatric intensive care, asthma and COPD wellness coordination and education, and pulmonary function technology. The goal is to help students working in these areas to reach a competency level where they can become NBRC board certified specialists. The new concentration and Graduate Certificate Program in Respiratory Specialty Practice requires completion of four courses for a total of 16 quarter hours, and will be implemented in September of 2016 (See curriculum requirements above on page 6). Students in the graduate certificate program will be able to transfer all 16 credit hours to the Master of Science in Respiratory Care Leadership Program and will have their Master's concentration courses completed on day one. This offers an opportunity to practicing RRTs who have been out of school for a while, and may be nervous about completing a graduate degree, to work on courses in areas where there is the likelihood of success. The awarding of a Graduate Certificate in Respiratory Specialty Practice will help to prepare the student for NBRC specialty examinations and document their competency as advanced clinical specialists.

### Faculty

The MSRCL faculty taking advantage of online instructional strategies are located across the country in Maine, Massachusetts, Georgia, Missouri and Texas. They bring years of experience in RT education and clinical practice to the courses they teach. New faculty members are being added this year and next as the new Respiratory Specialty Practice concentration and Graduate Certificate Program are implemented. Below are the faculty members currently on board.



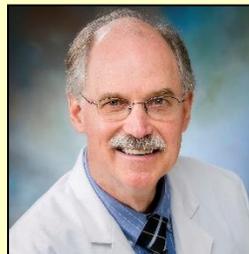
**Tom Barnes, EdD, RRT, FAARC** is the lead faculty member and academic consultant for the MSRCL and Graduate Certificate Programs and a Professor Emeritus of Cardiopulmonary Sciences. Tom teaches RPT 6970 Respiratory Capstone Seminar, RPT 7200 Advanced Cardiopulmonary Physiology, RPT 7205 Evolving Roles for Respiratory Care Professionals, RPT 7210 Research Design and RPT 7215 Applied Research in Respiratory Care in the MSRC Leadership Program. He is an AARC Past-president, an AARC Life Member, and a Jimmy A. Young Medalist. Dr. Barnes served as co-chair of the AARC 2015 Conferences 2 & 3 and is first author on two 2015 conference papers published in *Respiratory Care*. Dr. Barnes served as Chair of the 2015 Research Group for the third 2015 Conference. He has published over a 100 research articles and abstracts, textbooks, book chapters, and multimedia programs. Tom is the 2016-2017 President of the Coalition for Baccalaureate and Graduate Respiratory Therapy Education (CoBGRTE). He was selected in 2010 by the AARC Education Section as Practitioner of the Year.



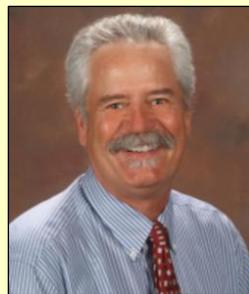
**Dean Hess, PhD, RRT, FAARC** is an instructor for the MSRCL and Graduate Certificate Programs. Dr. Hess teaches RPT 7402 Adult Critical Care. He is currently an Assistant Director of Respiratory Care at the Massachusetts General Hospital and Associate Professor of Anesthesia at the Harvard Medical School. Dr. Hess is also the Editor in Chief of Respiratory Care. He has published over 200 research articles and abstracts, textbooks, book chapters, and multimedia programs. Dean is Editor of the widely used textbooks: Respiratory Care: Principles and Practice, 3rd Edition. 2016 Jones & Bartlett Learning and Essentials of Mechanical Ventilation, 3rd Edition. 2014. McGraw-Hill. Dr. Hess is a NBRC Past-President, AARC Life Member and a Jimmy A. Young Medalist.



**Aaron Light, DHSc, RRT-ACCS, RRT-NPS** is an instructor for the MSRCL Program. Dr. Light teaches RPT 7300 Development of Clinical Practice Guidelines and Protocols. He is a 2009 graduate of the MSRCL Program and serves as Program Director for the RT program at Ozark Technical Community College, Springfield, Missouri. Dr. Light completed his Doctorate degree in Health Sciences at Nova Southeastern University and has extensive critical care and respiratory care research experience.



**Jon Nilsestuen, PhD, RRT, FAARC**, is an instructor for the MSRCL Program. Dr. Nilsestuen teaches RPT 7302 Respiratory Therapist Education. He is the former Chairman of the Baccalaureate and Master's Program at the University of Texas Medical Branch at Galveston. Jon authored a special section on graphic ventilator monitoring for the science journal Respiratory Care for several years. Dr. Nilsestuen serves as a member of the CoBGRTE Board of Directors.



**Art Taft, PhD, RRT, FAARC**, is an instructor for the MSRCL and Graduate Certificate Programs. Dr. Taft teaches RPT 7405 Development of Patient Management Plans. He is an Emeritus Associate Professor of Respiratory Therapy at Augusta University and is Program Director of the MSRC program at Canisius College. Over his career, Dr. Taft has made a number of presentations regionally, nationally, and internationally to a variety of professional audiences. He has been a regular presenter at the AARC open forum and has published numerous abstracts, manuscripts, and book chapters. In 2009 he received the Respiration Fellowship in Mechanical Ventilation from the ARCF. His research interests include airway care, Respiratory Therapy education, and non-invasive monitoring. In his most interesting research endeavor, he was invited by researchers from Cornell University to go to Etosha National Park in Namibia, Africa, where he studied the effects of posture on ventilatory function in the anesthetized African Black Rhinoceros. Dr. Taft serves as a member of the CoBGRTE Board of Directors.



## Contact Us

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[www.northeastern.edu/cps/admissions](http://www.northeastern.edu/cps/admissions)

- Follow-up questions about the application should be directed to an enrollment coach at [cpsadmissions@neu.edu](mailto:cpsadmissions@neu.edu) or call **1.877.668.7727**
- Questions about the program should be directed to [t.barnes@neu.edu](mailto:t.barnes@neu.edu) or call **1.617.851.3529**