INTRODUCTION

In April 2011, the academic members of the Department of Respiratory Therapy, College of Rehabilitation Sciences, began to re-examine the Bachelor of Medical Rehabilitation [BRT]* curriculum.

The process began with a review of the development of expertise in students in relationship to the curriculum, as well as a discussion of the desired learning goals. Consensus was reached on the appropriate goals as well as the specific objectives that would guide the delivery of the curriculum.

This document was developed by the Curriculum Reform Working Group of the Department of Respiratory Therapy to articulate the goals of the BRT program. The document also provides an overview of the structure (curriculum themes, and coursework) of the BRT curriculum, which is designed to ensure achievement of each of the stated program goals.

It is intended that this document will inform ongoing BRT curriculum evaluation and improvement undertaken by the relevant University of Manitoba curriculum committees. It will also be useful as an information source for students, clinical affiliate sites, accreditation agencies, and other organizations seeking an understanding of the goals and curriculum structure of the BRT program.

* The BRT credential replaced the previous BMR (RT) in 2015.

This guide contains the following components:

- An introduction to the Department of Respiratory Therapy, including its vision and mission statements and core values;
- An overview of the Bachelor of Respiratory Therapy curriculum, including:
  a. Program Goals
  b. Curriculum Themes
  c. Course Competencies
  d. Course Syllabus Guide
- A listing of Bachelor of Respiratory Therapy courses;
- A conceptual map of Bachelor of Respiratory Therapy courses.
The Department of Respiratory Therapy

The Department of Respiratory Therapy is an academic unit within the College of Rehabilitation Sciences, Faculty of Health Sciences. During the period in which this document was prepared the Department was part of the former School of Medical Rehabilitation, within the Faculty of Medicine. An academic restructuring initiative saw the Faculties of Dentistry, Medicine, Nursing and Pharmacy, and the Schools of Dental Hygiene and Medical Rehabilitation incorporated into a new Faculty of Health Sciences in 2014. As part of this process the School of Medical Rehabilitation became the College of Rehabilitation Sciences.

The Department and the University are unique amongst Canadian educational institutions, delivering the only entry-to-practice undergraduate degree program in Respiratory Therapy in the country. This position of educational leadership leaves the University of Manitoba uniquely poised to shape the academic development of the discipline of Respiratory Therapy.

The Department has access to state-of-the-art facilities for classroom, laboratory (including clinical simulation), and clinical teaching. The outstanding supports and experiences our students receive from the Respiratory Therapy clinical community are unparalleled. These together with a highly dedicated and talented faculty ensure that an exceptionally high degree of professional preparedness is exhibited by our graduates. This ensures that they remain influential in the profession and highly sought after in the job market.

The Respiratory Therapy program at the University of Manitoba is a four-year program leading to a Bachelor of Respiratory Therapy [BRT]. The first year is the pre-professional year, which can be completed at the University of Manitoba, or other University. During this time students must take 24 credit hours of courses consisting of a number of prerequisite courses, as well as electives of the student's choice. Students may then apply for entry into the professional program, which consists of three years of full-time studies in the Department of Respiratory Therapy.
The BRT curriculum redevelopment process was a key initiative of the Department of Respiratory Therapy’s strategic plan. The department’s strategic initiatives are guided by the following:

**VISION STATEMENT**

By 2017, the University of Manitoba Department of Respiratory Therapy will be recognized as providing an outstanding university education program that prepares exceptional Respiratory Therapists, and as a leading organization in the academic development of the discipline.

**MISSION STATEMENT**

To create, disseminate, and preserve knowledge in health and Respiratory Therapy through research, education and service, in collaboration with our stakeholders.

**VALUES**

Excellence, Innovation, Professional Responsibility, Scholarship.
PROGRAM GOALS

The BRT curriculum is designed to achieve six key program goals. The program goals broadly represent the skills, attitudes and behaviours necessary to become a practicing Respiratory Therapist, and to become professionally engaged and highly productive members of the discipline, for the people and communities it serves.

The BRT goals are achieved through the collective objectives of the program's coursework and fieldwork experiences. Embedded within these objectives are each of the competencies described by the National Alliance of Respiratory Therapy Regulatory Bodies as required for entry to practice, as well as a number of program specific requirements.

The BRT curriculum is designed to ensure students will:

GOAL #1
Attain the specialized body of knowledge that is foundational to the discipline of Respiratory Therapy

GOAL #2
Become competent in the full breadth of skills required within the discipline of Respiratory Therapy

GOAL #3
Be engendered with the attitudes and behaviours of safe, accountable, autonomous, and ethical professional practice and leadership

GOAL #4
Learn to practice effectively as a collaborator in inter-professional health and healthcare delivery

GOAL #5
Develop the attributes of a scholarly practitioner

GOAL #6
Gain appreciation for the societal context in which the profession is situated
CURRICULUM THEMES

The BRT curriculum is designed around five content themes. Differentiation of these themes in development of the curriculum content helps ensure learners will build on content as they progress throughout the program. The content of each theme reflects the skills, attitudes and/or knowledge, and may be developed by using a number of educational methods. The following is a description of each of the curriculum themes.

Professional Practice Stream

This stream facilitates the student’s development as a professional in the discipline of Respiratory Therapy. They will learn the foundations, processes, and standards of practice, the theoretical and philosophical concepts that guide safe practice, and the societal context of the profession. This theme will also provide the student opportunities to study how these concepts can be practically applied to address the respiratory health issues of individuals and groups.

Basic Clinical Sciences Stream

This stream introduces those scientific concepts which underpin the academic discipline and the clinical practice of Respiratory Therapy. The student will learn the applied scientific principles of the human body in health and disease, of pharmacologic intervention, and of diagnostic methodologies.

Mechanical Ventilation Stream

This stream develops understanding of the therapeutic application of mechanical ventilation. It enables the development of the technical knowledge and the practical skills to effectively manage mechanical ventilation at various states of respiratory compromise and disability. The stream will also address the practical and theoretical models that underpin the delivery of respiratory support with assisted devices in a variety of contexts.
Therapeutics Stream

This stream introduces the methods used in Respiratory Therapy when treating clients. It develops the theoretical and practical knowledge necessary for the delivery of respiratory care therapeutics and management of the relevant clinical technologies. It also provides opportunity for students to develop skill in applying therapeutics in a classroom and laboratory setting.

Integrated Studies Stream

This stream provides the student the opportunity to integrate all knowledge, skills, and attitudes learned in all other curriculum streams. The coursework will primarily be delivered experientially through clinical education and clinical scenario based simulated learning experiences.

Cross-cutting principles:

The BRT curriculum encompasses several elements which cross all of the five core themes. These elements are acknowledged within individual course objectives. They ensure that each curriculum theme is addressed from the perspective of the prevailing model of care in the discipline (or alternative model where appropriate), the individuals and populations it serves, and the venues in which practice may occur. These principles include:

• Delivery of care using a client centered model;
• Delivery of care to a highly diverse group of individuals and populations, inclusive of all age groups, cultures, etc.;
• Delivery of care within a diverse array of practice settings and/or environments.
COURSE COMPETENCIES

The BRT curriculum has been designed to meet the discipline specific entry-to-practice requirements as described by the National Competency Profile (NCP) 1 for Respiratory Therapy in Canada, as well as a variety of program specific requirements. Each course is designed to ensure students learn specified course competencies, each of which are conceptually aligned with the curriculum stream in which the course is situated. These competencies collectively form the program's curriculum map, which details the lockstep manner in which they are developed throughout the program.

Courses and course objectives are aligned within streams, and sequenced in a lockstep manner. Thus each course is foundational for subsequent courses within streams. Individual course objectives described in each course syllabus are systematically designed to achieve the program goals.

Course competencies describe the specific skills, knowledge and attitudes that learners will attain in each course. The BRT curriculum encompasses a broad range of competencies including the knowledge which is foundational to the discipline (this has in part been developed in consideration of the CSRT National Curriculum Guide1), those which are professional entry-to-practice in nature2, and other which address those BRT program goals beyond current entry-to-practice standards. Those which extend beyond mandated entry-to-practice standards support the development of enhanced student proficiency in important areas such as information literacy and evidence informed practice, patient safety3, and collaborative interprofessional practice4.

Within the course syllabuses, each course competency has been designated a specific learning and performance level at which it will be taught and evaluated (see the “Course Syllabus Guide” section of this document for further detail). This is intended to ensure the sequential structure of the curriculum facilitates optimal student development.

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(2) The National Alliance of Respiratory Therapy Regulatory Bodies, 2011 Respiratory Therapy National Competency Profile. nartrb.ca/eng/resources.php
(3) The Canadian Patient Safety Institute, The Safety Competencies. patientsafetyinstitute.ca/English/tools/Resources/safetyCompetencies/Pages/default.aspx
COURSE SYLLABUS GUIDE

The following terminology has been utilized in the development, organization and description of curriculum materials in the Bachelor of Respiratory Therapy program. This guide serves as a reference tool for instructors, students and other curriculum users.

For all competencies addressed within any course in the BRT program, the learning and performance level for that competency is specified in the course syllabus (see sample course syllabus in the section). Syllabuses also specify those competencies which must be achieved in specific environments such as simulated labs or in clinical practice settings.

Course Competencies: Learning Level (following the “ICE” Model)

Describes the learning objectives in a way that recognizes that learners progress in a stepwise manner through three main levels of learning.

- **IDEAS (I)** – learners acquire basic or fundamental knowledge you can get from a book, handouts or notes.
- **CONNECTIONS (C)** – learners will connect the basic concepts together and can form relationships between what they already know and what was recently learned.
- **EXTENSIONS (E)** – learners will extend their learning into novel ways, extrapolate their knowledge, make informed judgements, and answer hypothetical questions.

Course Competencies: Performance Level

This describes the level at which students will be able to demonstrate the attitudes, skills or knowledge learned (based on the Dreyfus ‘novice to expert’ model). This is useful to the instructor in developing course materials including evaluation.

- **NOVICE** – learners demonstrate textbook knowledge without connecting it to practice.
- **FUNCTIONAL** – learners demonstrate a working knowledge, their situational perception is still limited, and straightforward tasks are likely to be completed to an acceptable standard.
- **COMPETENT** – learners demonstrate a good working and background knowledge of the area of practice, they are prepared for entry to practice though may lack refinement.


(3) The National Alliance of Respiratory Therapy Regulatory Bodies, 2011Respiratory Therapy National Competency Profile. nartrb.ca/eng/resources.php
# SAMPLE COURSE SYLLABUS

## COURSE: RESP 2220  
**Physical Examination and Health Assessment**

### COURSE DESCRIPTION:

This course focuses on the development of the patient/client history and physical examination skills essential to health assessment. Students will apply the findings of health assessments in the determination of differential diagnoses and in the development of respiratory care plans.

### COURSE OBJECTIVES:

Upon completion of this course, the student will be able to:

1. Obtain a comprehensive health related history from a variety of sources;
2. Employ the skills necessary to perform physical examinations through a body systems approach;
3. Integrate subjective and objective data in order to make a determination as to the health status of an individual;
4. Determine and communicate an appropriate respiratory care plan based on a health assessment.

### COURSE COMPETENCIES:

<table>
<thead>
<tr>
<th>Competency</th>
<th>Competency Code</th>
<th>Age Group (N, P, A)</th>
<th>Learning Level (ICE)</th>
<th>Performance Level (Novice Functional, Competent)</th>
<th>Lab Delivery: Skills Based Scenario Based, or Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct a comprehensive patient/diet history (e.g., environmental, resources, equipment, safety, home evaluation, psycho-social ...)</td>
<td>8.1</td>
<td>N,P,A</td>
<td>Connections</td>
<td>Novice</td>
<td>Scenario Based</td>
</tr>
<tr>
<td>Conduct and interpret results of complete physical respiratory assessment (i.e., inspection, palpitation, percussion, auscultation)</td>
<td>8.2</td>
<td>N,P,A</td>
<td>Connections</td>
<td>Functional</td>
<td>Scenario Based</td>
</tr>
<tr>
<td>Conduct and interpret results of basic cardiac assessment</td>
<td>8.3</td>
<td>N,P,A</td>
<td>Connections</td>
<td>Functional</td>
<td>Scenario Based</td>
</tr>
<tr>
<td>Conduct and interpret results of basic head-to-toe physical assessment</td>
<td>N,P,A</td>
<td>Connections</td>
<td>Functional</td>
<td>Scenario Based</td>
<td></td>
</tr>
<tr>
<td>Develop a preliminary differential diagnosis based on the findings of a patient/client history physical</td>
<td>N,P,A</td>
<td>Extensions</td>
<td>Functional</td>
<td>Scenario Based</td>
<td></td>
</tr>
<tr>
<td>Develop a plan for further investigation and/or confirmation of a preliminary differential diagnosis</td>
<td>N,P,A</td>
<td>Extensions</td>
<td>Functional</td>
<td>Scenario Based</td>
<td></td>
</tr>
<tr>
<td>Assess need for medication</td>
<td>9.1</td>
<td>N,P,A</td>
<td>Connections</td>
<td>Functional</td>
<td>Scenario Based</td>
</tr>
<tr>
<td>Develop, monitor, assess and adjust respiratory care plan</td>
<td>8.5</td>
<td>N,P,A</td>
<td>Extensions</td>
<td>Functional</td>
<td>Scenario Based</td>
</tr>
<tr>
<td>Develop discharge plan</td>
<td>8.6</td>
<td>A</td>
<td>Extensions</td>
<td>Novice</td>
<td>N/A</td>
</tr>
<tr>
<td>Document and communicate the results of a wealth assessment and respiratory care plan</td>
<td></td>
<td>N,P,A</td>
<td>Extensions</td>
<td>Novice</td>
<td>Scenario Based</td>
</tr>
</tbody>
</table>
PROGRAM COURSE WORK

BRT Year 1
ANAT 1030 Human Anatomy
RESP 1400 Introduction to Professional Practice
RESP 1410 Health Systems and Respiratory Care
RESP 1420 Applied Physiology for Respiratory Therapy
RESP 1430 Respiratory Therapeutics I
RESP 1440 Pharmacology
RESP 1450 Principles of Mechanical Ventilation
RESP 1460 Basic Fieldwork I

BRT Year 2
REHB 2450 Research Methodology for Medical Rehabilitation
RESP 2200 Primary Care in Respiratory Therapy
RESP 2210 Pathophysiology
RESP 2220 Physical Examination and Health Assessment
RESP 2230 Respiratory Therapeutics II
RESP 2240 Clinical Mechanical Ventilation
RESP 2250 Ventilator Instrumentation
RESP 2260 Cardiopulmonary Diagnostics
RESP 2380 Basic Fieldwork II
RESP 2390 Clinical Integration and Simulation

BRT Year 3
RESP 3320 Clinical Education in Pediatric Respiratory Care
RESP 3350 Clinical Education in Pulmonary Diagnostics
RESP 3360 Clinical Education in Anesthesia
RESP 3370 Clinical Education in Community Care
RESP 3410 Clinical Education in Critical Care
RESP 3420 Clinical Education in Neonatal Care
RESP 3430 Clinical Education in General Therapeutics
RESP 3440 Current Topics in Respiratory Therapy
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Andrew West (Chair)
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BRT Curriculum Approval:

BRT Program Committee                               September 3, 2013
School of Medical Rehabilitation Council Executive    September 9, 2013
University of Manitoba Senate                        December 4, 2013