

Respiratory Care

Degrees:

AAS Advanced Practice Respiratory Therapist 68-70

Certificates: Electrographic & Cardiac Monitoring Technician 17-20
 Polysomnographic Technologist 36

Description:

The Respiratory Care program prepares the graduate to take an active role in the maintenance and/or restoration of cardiopulmonary homeostasis. The curriculum includes intensive course work in the supporting sciences and general education areas. Classroom instruction is supplemented with learning experiences in the campus laboratory and in area clinical affiliates. Students enrolled in the Respiratory Care program are required to achieve a minimum grade of "C" in each Respiratory Care course.

Although hospitals employ the majority of respiratory therapists, other employers include home care providers, medical clinics, nursing homes, and industry. Graduates are qualified to take the National Board for Respiratory Care examination in order to receive the Certified Respiratory Therapist (C.R.T.) credential. Graduates who successfully completed the CRT examination may additionally write the advanced practice examinations and receive the Registered Respiratory Therapist (RRT) credential.

*Note: The Kentucky Board for Respiratory Care may deny mandatory certification for convicted felons. Questions should be directed to the Kentucky Board for Respiratory Care.

* Note: Computer literacy must be documented by competency exam or by completing a computer literacy course.

Implementation: Fall 2013

Competencies:

AAS ADVANCED PRACTICE RESPIRATORY THERAPIST

General Education Competencies:

Students should prepare for twenty-first century challenges by gaining:

- A. Knowledge of human cultures and the physical and natural worlds through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- B. Intellectual and practical skills, including
 - inquiry and analysis
 - critical and creative thinking
 - written and oral communication
 - quantitative literacy
 - information literacy
 - teamwork and problem solving
- C. Personal and social responsibility, including
 - civic knowledge and engagement (local and global)
 - intercultural knowledge and competence
 - ethical reasoning and action
 - foundations and skills for lifelong learning
- D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Technical Competencies:

1. Perform cardiopulmonary diagnostic procedures, patient assessment, and respiratory care planning.
2. Administer therapeutic and life support procedures in the management of patients with cardiopulmonary impairment.
3. Evaluate appropriateness of prescribed respiratory care and recommend modifications where indicated.
4. Select, assemble, check, correct malfunctions, and assure cleanliness and calibration of respiratory care equipment.
5. Maintain an ethical and effective relationship with the health care team.
6. Perform essential elements of patient education.
7. Demonstrate an awareness of organizational and management principles as related to respiratory care.
8. Perform and act on the results of advanced patient assessment techniques.
9. Assist the physician in special procedures of cardiopulmonary care.
10. Demonstrate skills and attitudes needed to maintain professional and technical competence.
11. Demonstrate the ability to think abstractly, reason logically, and apply problem solving skills in the practice of respiratory care.

CERTIFICATE - ELECTROCARDIOGRAPHIC AND CARDIAC MONITORING TECHNICIAN**General Education Competencies:**

Students should prepare for twenty-first century challenges by gaining:

- A. Knowledge of human cultures and the physical and natural worlds through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- B. Intellectual and practical skills, including
 - inquiry and analysis
 - critical and creative thinking
 - written and oral communication
 - quantitative literacy
 - information literacy
 - teamwork and problem solving
- C. Personal and social responsibility, including
 - civic knowledge and engagement (local and global)
 - intercultural knowledge and competence
 - ethical reasoning and action
 - foundations and skills for lifelong learning
- D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Technical Competencies:

1. Perform cardiopulmonary diagnostic procedures including electrocardiograms, and patient assessment.
2. Recognize and interpret common cardiac rhythms and determine the need to communicate changes.
3. Perform emergency initiation of cardiopulmonary resuscitation.
4. Assemble, check, correct malfunctions, and assure cleanliness of cardiac monitoring equipment.
5. Maintain an ethical and effective relationship with the health care team.
6. Assist the physician in special procedures of cardiopulmonary care.

Certificate - POLYSOMNOGRAPHIC TECHNOLOGIST

Students should prepare for twenty-first century challenges by gaining:

- A. Knowledge of human cultures and the physical and natural worlds through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
- B. Intellectual and practical skills, including

- inquiry and analysis
 - critical and creative thinking
 - written and oral communication
 - quantitative literacy
 - information literacy
 - teamwork and problem solving
- C. Personal and social responsibility, including
- civic knowledge and engagement (local and global)
 - intercultural knowledge and competence
 - ethical reasoning and action
 - foundations and skills for lifelong learning
- D. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Technical Competencies:

1. Assess the physician's polysomnography request in order to determine its completeness and appropriateness to ensure valid data collection.
2. Select, assemble, check, calibrate and troubleshoot polysomnographic equipment.
3. Perform polysomnographic diagnostic procedures.
4. Apply cleaning and sterilization procedures on reusable laboratory equipment in order to assure patient safety and infection control.
5. Score the stages of sleep, arousals, respiratory, movement and miscellaneous events.
6. Generate and validate a report of the scoring and subjective data in order to summarize the polysomnographic procedure.
7. Evaluate appropriateness of prescribed polysomnographic studies and recommend modifications where indicated.
8. Maintain an ethical and effective relationship with the health care team.
9. Perform essential elements of patient education.
10. Demonstrate an awareness of organizational and management principles as related to polysomnography.
11. Work under the direction of a physician to provide information to the patient regarding his or her treatment.
12. Demonstrate skills and attitudes needed to maintain professional and technical competence.
13. Demonstrate the ability to think abstractly, reason logically, and apply problem solving skills in the practice of polysomnography.

Outlines:

Program Title: A.A.S.: Advanced Practice Respiratory Therapist

<u>Course Prefix</u>	<u>Course Number</u>	<u>Course Title</u>	<u>Credit Hours</u>
BIO	137	Human Anatomy & Physiology I*	4
BIO	139	Human Anatomy & Physiology II*	4
MAT	150	College Algebra & Functions* OR	3
MAT	110	Applied Mathematics* OR	(3)
MAT	146	Contemporary College Mathematics*	(3)
		Oral Communications*	3
		Social/Behavioral Science*	3
ENG	101	Writing I*	3
		Heritage/Humanities*	3
		General Education Total	23
		Recommended Additional Course(s)	
ENG	102	Writing II	(3)
BIO	226	Principles of Microbiology OR	(3)
BIO	225	Medical Microbiology	(4)

Technical Courses

RCP	110	Cardiopulmonary Anatomy & Physiology	3
RCP	120	Theory & Principles of Respiratory Care OR	4
<u>RCP</u>	<u>122</u>	<u>Fundamentals of Respiratory Care</u>	<u>(4)</u>
RCP	125	Cardiopulmonary Evaluation OR	4
<u>RCP</u>	<u>140</u>	<u>Cardiopulmonary Assessment</u>	<u>(2)</u>
RCP	130	Pharmacology	3
RCP	150	Clinical Practice I OR	2
<u>RCP</u>	<u>121</u>	<u>Respiratory Care Practice I</u>	<u>(1)</u>
RCP	175	Clinical Practice II OR	3
<u>RCP</u>	<u>176</u>	<u>Respiratory Care Practice II</u>	<u>(2)</u>
RCP	180	Ventilatory Support &	3
RCP	190	Advanced Ventilatory Support OR	2
<u>RCP</u>	<u>185</u>	<u>Introduction to Mechanical Ventilation &</u>	<u>(2)</u>
<u>RCP</u>	<u>195</u>	<u>Patient-Ventilator System Management</u>	<u>(4)</u>
RCP	200	Clinical Practice III OR	3
<u>RCP</u>	<u>201</u>	<u>Respiratory Care Practice III</u>	<u>(2)</u>
RCP	204	Emergency and Special Procedures &	3
RCP	214	Advanced Diagnostic Procedures OR	3
<u>RCP</u>	<u>240</u>	<u>Advanced Cardiopulmonary Evaluation &</u>	<u>(3)</u>
<u>RCP</u>	<u>245</u>	<u>Advanced Cardiac Life Support</u>	<u>(2)</u>
RCP	210	Cardiopulmonary Pathophysiology	3
RCP	212	Neonatal/Pediatric Respiratory Care	3
RCP	225	Clinical Practice IV OR	3
<u>RCP</u>	<u>226</u>	<u>Respiratory Care Clinical Practice IV</u>	<u>(4)</u>
RCP	228	Preventive and Long Term Respiratory Care	2
RCP	250	Clinical Practice V OR	3
<u>RCP</u>	<u>251</u>	<u>Respiratory Care Practice V</u>	<u>(4)</u>
		Elective (BCTC requires RCP 260)	0-1
		Technical Course Credit Total	47
		<u>Technical Course Credit Total</u>	<u>45</u>

Total Credits

68-70

*** General Education Course**

RCP courses currently only offered and required at BCTC for degree completion at that college.

Certificate: Electrocardiographic and Cardiac Monitoring Technician

<u>Course Prefix</u>	<u>Course Number</u>	<u>Course Title</u>	<u>Credit Hours</u>
BIO	137	Human Anatomy & Physiology I*	4
BIO	139	Human Anatomy & Physiology II*	4
MAT	150	College Algebra* OR	3
MAT	146	Contemporary College Mathematics* OR	(3)
MAT	110	Applied Mathematics*	(3)
Technical Courses			
RCP	110	Cardiopulmonary Anatomy & Physiology	3
RCP	125	Cardiopulmonary Evaluation OR	4
<u>RCP</u>	<u>140</u>	<u>Cardiopulmonary Assessment</u>	<u>(2)</u>
RCP	150	Clinical Practice I OR **	2
<u>RCP</u>	<u>121</u>	<u>Respiratory Care Practice I **</u>	<u>(1)</u>

** In addition Twenty (20) hours of documented clinical

electrocardiographic experience or documented
Electrocardiographic & Cardiac Monitoring Competence is
required.

Total Credits

17-20

* General Education Course

RCP courses currently only offered and required at BCTC
to complete certificate.

Certificate: Polysomnographic Technologist

<u>Course Prefix</u>	<u>Course Number</u>	<u>Course Title</u>	<u>Credit Hours</u>
BIO	137	Human Anatomy & Physiology I*	4
BIO	139	Human Anatomy & Physiology II*	4
ENG	101	Writing I	3
MAT	150	College Algebra* OR	3
MAT	146	Contemporary College Mathematics* OR	(3)
MAT	110	Applied Mathematics*	(3)
AHS	115	Medical Terminology	3
		Subtotal	17
Technical Courses			
PSG	100	Introduction to Polysomnography	2
PSG	110	Polysomnography Level I	3
PSG	111	Polysomnography Lab I	1
PSG	115	Polysomnography Practice I	3
PSG	130	Polysomnography Level II	3
PSG	131	Polysomnography Lab II	1
PSG	133	Pathology of Sleep and Related Disorders	3
PSG	135	Polysomnography Practice II	3
		Subtotal	19
		TOTAL	36
		* General Education Course	

Dates of Actions:

Approved: May 2001

Revised: March 2003, May 2003, December 2005, March 2007; October 2008; May 2009; April 2010;
March 2012, March 2013