



**PTA 216 – CARDIOVASCULAR & PULMONARY PT SYLLABUS**  
**LECTURE HOURS/LAB HOURS/CREDITS: 1/2/2**

**CATALOG DESCRIPTION**

**Prerequisite:** PTA 102 Kinesiology and Measurement of the Musculoskeletal System; PTA 105 Pathophysiology for the PTA

This course will focus on assessment techniques and treatment interventions for cardiovascular and pulmonary pathologies, as well as assessment and treatment for patients with amputations. Knowledge and skills will be assessed through skill-competency testing, written examinations, and practical examinations.

**TEXTBOOK AND COURSE MATERIALS**

It is the **responsibility of the student** to confirm with the bookstore and/or their instructor the textbook, handbook and other materials required for their specific course and section.

*Please see current textbook prices at [rcgc.bncollege.com](http://rcgc.bncollege.com)*

**EVALUATION AND ASSESSMENT**

**Grade distribution**

ASSESSMENT	PERCENTAGE	POINT VALUE
Quizzes (4)	20%	200
Written Exams (2)	40%	400
Competency Tests (4)		PASS OR FAIL
Practical exam (2x150)	30%	300
Class/lab attendance & participation	10%	100
<b>TOTAL</b>	100%	1000

**Grading Scale**

A 92-100	C 76-80
B+ 89-91	D+ 74-75
B 84-88	D 70-73
C+ 81-83	F Below 70

### Participation/Discussion and Posting Rubric

100 points:	Plays an active, ongoing role in discussions; comments advance the level and depth of the discussion. Written communication is grammatically correct and professional. <b>Medical terminology is incorporated.</b>
75 points:	Participates constructively in discussion; makes relevant comments based on the assigned material. Written communication has no more than five (5) minor errors. <b>Medical terminology is incorporated.</b>
50 points:	Preparation is inconsistent; when prepared, participates constructively; when prepared, makes relevant comments based on the assigned material. Written communication has 5-10 errors.
25 points:	Infrequently prepared and infrequently participates; comments are generally vague; demonstrates a noticeable lack of interest. Written communication has multiple errors.
0 points:	Demonstrates a noticeable lack of interest; negatively impacts discussion. Assignments are incomplete.

Missed exams may be made available for MAKE-UP on an individual basis for significantly extenuating circumstances only, and is at the discretion of the instructor and the Program Director.

#### ROWAN COLLEGE AT GLOUCESTER COUNTY CORE COMPETENCIES

(Based on the NJCC General Education Foundation - August 15, 2007; Revised May 2014)

This comprehensive list reflects the core competencies that are essential for all RCGC graduates; however, each program varies regarding competencies required for a specific degree. Critical thinking is embedded in all courses, while teamwork and personal skills are embedded in many courses

RCGC Core Competencies	
1	<b>Written and Oral Communication</b> Students will communicate effectively in both speech and writing.
2	<b>Quantitative Knowledge and Skills</b> Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.
3	<b>Scientific Knowledge and Reasoning</b> Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.
4	<b>Technological Competency</b> Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.
5	<b>Society and Human Behavior</b> Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.
6	<b>Humanistic Perspective</b> Students will analyze works in the fields of art, history, music, or theater; literature; philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.
7	<b>Historical Perspective</b> Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.

8	<b>Global and Cultural Awareness</b> Students will understand the importance of a global perspective and culturally diverse peoples.
9	<b>Ethical Reasoning and Action</b> Students will understand ethical issues and situations.
10	<b>Information Literacy</b> Students will address an information need by locating, evaluating, and effectively using information.

**PTA 216 CARDIOVASCULAR & PULMONARY PT CORE COMPETENCIES**  
**PTA PROGRAM OBJECTIVES TO MEET RCGC CORE COMPETENCIES**

Graduates from the RCGC PTA Program will meet all of the RCGC Core Competencies as depicted in the chart shown below. The Core Competencies are satisfied by the following behavior objectives and the corresponding student assessment from the technical courses PTA 101 *Introduction to Physical Therapy Assisting*, PTA 102 *Kinesiology and Measurement of the Musculoskeletal System*, PTA 105 *Pathophysiology for the PTA*, PTA 107 *Essential Skills for the PTA I: Patient Care*, PTA 207 *Essential Skills for the PTA II: Biophysical Agents*, PTA 208 *Management of Neurological Disorders Across the Lifespan*, PTA 210 *Orthopedics for the PTA*, PTA 216 *Cardiovascular & Pulmonary PT*, PTA 240 *Seminar in PTA Professionalism*, and HPE 106 *Health & Wellness Promotion in Physical Therapy*

Core Competencies	The PTA program graduate will be able to:	Evaluation / Assessment
<b>Written and Oral Communication</b>	PTA 208 19. Demonstrate appropriate education techniques for patients and their caregivers while addressing safety and functional issues	Advanced Wheelchair Skills competency test
<b>Quantitative Knowledge and Skills</b>	PTA 102 25. Demonstrate the ability to accurately assess joint range of motion using a goniometer and inclinometer for the peripheral joints and spine	Competency test Practical Examination
<b>Scientific Knowledge and Reasoning</b>	PTA 207 4. Identify the laws of physics related to the use of physical agents PTA 207 5. Identify the physical principles of water related to aquatic therapy	Written exams
<b>Technological Competency</b>	PTA 101 30. Perform a systematic review of professional literature by accessing written and digital information, and relate it to a major PT specialty	Written paper Presentation
<b>Society and Human Behavior</b>	PTA 101 26. Demonstrate an awareness of social responsibility and the non-clinical roles of the PTA	Group discussion Written exams
<b>Humanistic Perspective</b>	PTA 208 7. Compare the eight levels of recovery following Traumatic Brain Injury (TBI) as identified in the Ranchos Los Amigos Cognitive Rating Scale, including how these levels effect physical therapy treatment	Reading and discussion of <i>Where's the Mango Princess?</i> By Cathy Crimmins
<b>Historical Perspective</b>	PTA 101 5. Recognize the components of the American Physical Therapy Association (APTA)	Written exam questions Large group discussion
<b>Global and Cultural Awareness</b>	PTA 208 28. Acknowledge the individual and cultural differences of patients by communicating and responding appropriately during treatment sessions	Group Discussions Practical Examination

<b>Ethical Reasoning and Action</b>	PTA 240 13. Reflect upon past clinical experiences and how they relate to ethics, jurisprudence, maleficence and malpractice	Reflective Paper
<b>Information Literacy</b>	PTA 101 30. Perform a systematic review of professional literature by accessing written and digital information, and relate it to a major PT specialty PTA 240 4. Design and present a case report utilizing appropriate evidence based resources	Written paper Poster Presentation Case report

It is the responsibility of the student to review the RCGC Information and Policies, as well as the Online Syllabus at: <https://www.rcgc.edu/syllabi/Pages/default.aspx>

### **PTA 216 Course Student Learning Outcomes**

Upon the successful completion of this course with a grade of C or higher, the student will be able to:

1. Identify the common assessment techniques and treatment interventions for a patient with a lower extremity amputation
2. Demonstrate an understand of lower extremity prosthetic devices, including gait deviations, and concerns regarding skin integrity
3. Demonstrate the ability to perform common cardiopulmonary assessment techniques and treatment interventions
4. Identify common assessment techniques and treatment interventions for patients with cardiopulmonary disorders
5. Recognize abnormal lab values and diagnostic test results that may affect physical therapy treatment

### **Content to be covered in this course:**

- I. Common pulmonary and cardiovascular diagnoses:
  - a. CHF and heart failure/ cor pulmonale
  - b. COPD, RLD, asthma, emphysema
  - c. valve stenosis
  - d. MI, PVD, DVT, HTN, CAD, hyperlipidemia
  - e. vascular insufficiency and wounds
  - f. cystic fibrosis, Sickle Cell anemia
  - g. bacterial/viral pneumonia, aspiration pneumonia
  - h. pneumothorax, hemothorax
  - i. lung cancer
- II. Common pulmonary and cardiovascular medical procedures:
  - a. transplantation
  - b. CABG, endarterectomy, valve replacement
  - c. surgical amputation
  - d. thoracotomy, tracheostomy, chest tube/drain placement
  - e. catheterization, PTCA (percutaneous transluminal coronary angioplasty)
  - f. permanent pacemaker implantation, automatic implantable cardioverter/defibrillator
- III. Sternal precautions
- IV. Medications (pharmacology) that may affect physical therapy intervention
- V. Ventilation and oxygenation
  - a. oxygen saturation
  - b. modes of ventilation (CPAP, PEEP, negative pressure)
- VI. Airway clearance (bronchial hygiene)
- VII. Pediatric pathologies
  - a. cystic fibrosis
  - b. congenital heart disease
  - c. ventricular septal defect, tetralogy of Fallot, atrial septal defect
- VIII. Amputation
  - a. Vascular

- b. Traumatic
- IX. Cardiac rehab: exercise and stress testing
- X. Pulmonary rehab
- XI. Diagnostic testing
  - a. radiography,
  - b. echocardiography,
  - c. CT scan,
  - d. Doppler,
  - e. TEE (transesophageal echocardiography),
  - f. MRI,
  - g. MRA,
  - h. Holter monitoring,
- XII. PT Interventions
  - a. exercise,
  - b. AAROM/AROM,
  - c. patient education,
  - d. bed mobility and transfers,
  - e. postural drainage positions and bronchial hygiene techniques
    - i. chest percussion,
    - ii. vibration,
    - iii. cough stimulation,
  - f. residual limb wrapping,
  - g. amputee transfer and gait training

#### **Affirmative Action Statement**

The Board of Trustees is committed to providing an educational and workplace environment free from unlawful harassment and discrimination. All forms of employment and educational discrimination and harassment based upon race, creed, color, national origin, age, ancestry, nationality, marital or domestic partner or civil union status, sex, pregnancy, gender identity or expression, disability, liability for military service, affectional, or sexual orientation, atypical cellular or blood trait, genetic information (including refusal to submit to genetic testing) are prohibited and will not be tolerated.

For questions concerning discrimination contact Almarie J. Jones, Executive Director, Diversity and Equity, Affirmative Action/Title IX Officer at 856-415-2154 or [ajones@rcgc.edu](mailto:ajones@rcgc.edu).

For disability issues, contact Dennis M. Cook, Director, Department of Special Services, ADA/504 Officer at 856-415-2265 or [dcook@rcgc.edu](mailto:dcook@rcgc.edu).

#### **Department of Special Services**

The Department of Special Services, located in the Instructional Center, room 425A, welcomes students of all abilities. The staff members in Special Services are committed to providing support services and ensuring equal access to eligible students with documented disabilities as outlined by the Americans with Disabilities Act (ADA) and the Americans with Disabilities Act with Amendments Act (ADAAA).

To maximize the potential of eligible students who self-identify, the Special Services staff provides an array of support services which may include extra time for tests and quizzes, testing in a separate location, advisement, interpreters, scribes, tutors, assistive technology (such as magnification devices and audio amplification), touch screen computers, audio books and note-taking assistance.

As students embark on their academic journey, they are encouraged to meet with staff members to identify, develop and implement support services that are in accord with their individual academic needs. Students are also encouraged to make use of other college support services that are available to all RCGC

students currently enrolled in credited academic courses, such as tutoring services and the college library, which offer online information research and other materials needed to complement their studies.

Students registered with the Department of Special Services and who plan to earn an associate degree, further their education and transfer to a four-year institution, or enter the workforce, are encouraged to choose a corresponding program of study (college major) as soon as possible. The Special Services staff assists enrolled students with additional support that focuses on advancing students through their selected programs of study towards a goal of graduating.

Students who request academic support from the Department of Special Services can be assured that confidentiality will always be maintained. Accommodations are provided to address the special needs of individuals with disabilities under Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act (ADA) of 1990 together with the ADA Amendments Act of 2008 (ADAAA). Under these acts, the office advocates a user-friendly campus for accessibility and a learning-friendly campus for academic success.

For more information or to schedule an appointment to meet Special Services staff, please call 856-415-2265 or visit [RCGC.edu/SpecialServices](http://RCGC.edu/SpecialServices).

### **To Register with Special Services**

Students must follow these steps:

- Complete and submit the Student Profile form. Access the [Student Profile Form](#).
- Submit documentation detailing the student's disability. Support services will not be granted without documentation specifying the student's disability. Documentation should include the following information:
  - a. Diagnosis with written evaluation of current disability;
  - b. Date the student was diagnosed;
  - c. Tests used to reach diagnosis;
  - d. Credentials of the medical professional conducting evaluation; and
  - e. How the disability affects daily activities and/or academic performance.
- By clicking on the following links, students can download the [Special Education Records Release Form](#) and/or Medical Release Form to present to their medical care professional.
- Contact the Special Services office to schedule a meeting with a staff member.
  1. Students should schedule a meeting after submitting the [Student Profile Form](#), proper documentation and completing the College's placement test. (Click on [Special Accommodations for Placement Testing](#) to determine whether student should arrange his/her placement test through the Special Services office or the general Testing Center.
  2. During the meeting, the student and staff member will discuss his or her disability and determine eligible accommodations.

### **Accommodations**

Students who qualify for accommodations are encouraged to register with the Department of Special Services at RCGC before they begin their academic career at Rowan College. This allows students to take advantage of any special accommodations and auxiliary aids that they might need and be eligible to receive.

- **Special accommodations** include but are not limited to extended time on tests, private test rooms to complete tests with the assistance of a reader or scribe, as well as a distraction-free test room.
- **Auxiliary aids** include but are not limited to note takers, tape recorders, large display calculators, interactive calculators, desktop magnifiers, large-screen computer monitors, touch-screen computer monitors, touch-screen laptop computers and JAWS® software. More information about adaptive technology can be found on the [technology](#) link. Students are responsible for identifying which accommodations and auxiliary aids they require for academic support.

### **Confidentiality**

Students who register with the Department of Special Services are assured that their information is kept confidential.

In addition, the student's transcript will not indicate that the he or she is registered with the Department of Special Services. The student's specific special need is not disclosed to the student's instructors. However, accommodation letters are sent to each of the student's professors if the student needs testing accommodations or accommodations in the classroom. It is the student's choice whether or not to disclose the specifics of his or her special need.