

#### PARAMEDIC SCIENCE

**CODE:** PAR 111 **TITLE:** Principles of Paramedic Science I

**DIVISION:** Health Sciences

<u>Course Description:</u> This theory course prepares the student to develop an understanding of the roles and responsibilities of the paramedic, EMS systems, and laws that affect EMS. It will introduce the student to venipuncture and blood collection; emergency pharmacology; fluids, electrolytes and intravenous therapy; respiratory therapy, suctioning techniques and airway devices; infectious disease; non-traumatic musculoskeletal disorders; diseases of the eyes, ears, nose, and throat; and disease specific medications. Dosing and drug calculations and administration will be learned.

**PREREQUISITE:** Admission to the Paramedic Science Program

**COREQUISITE:** PAR 112

CREDITS: 8 cr.

### REQUIRED MATERIALS (CHECK BOOKSTORE FOR LATEST EDITION):

Click on the bookstore for the supplies which you are attending each class. Rcbc.edu/bookstore

### **COURSE LEARNING OUTCOMES:**

Upon completion of this course, students will be able to:

- Demonstrate a comprehensive knowledge of patient pathophysiologic and cultural differences to inform care
- Demonstrate comprehensive knowledge of EMS systems, as well as medical, ethical, and legal issues affecting the safety and health of the paramedic
- Utilize ethical reasoning to assess and modify treatment plans for pre-hospital patients
- Integrate knowledge of pharmacology and skill performance in the treatment plan to improve the health of the patient
- Demonstrate knowledge of appropriate medical terminology and approved abbreviations in written and verbal communication with all healthcare professionals

• Demonstrate knowledge and skills which assure patient airway and adequate ventilation for patients of all ages

## GENERAL EDUCATION OUTCOMES IN THIS COURSE:

Written and Oral Communication: Communication	*Students will logically and persuasively state and support orally and/or in writing their points of view or findings
Scientific Knowledge & Reasoning: Science	*Applying the scientific method, students will analyze a problem and draw conclusions from data and evidence  *Students will distinguish between scientific theory and scientific discovery, and between science and its technological applications, and they will explain the impact of each on society
Global & Cultural Awareness: Diversity	*Students will explain why an understanding of differences in people's backgrounds is particularly important to American society

# **CORE COURSE CONTENT:**

- Introduction
  - o EMS Systems
  - o Workforce Safety and Wellness
  - o Documentation
  - o EMS System Communication
  - o Therapeutic Communication
  - Medical/Legal and Ethics
  - Anatomy and Physiology
  - Medical terminology
  - Pathophysiology
  - Airway Management, Respiration, and Artificial Ventilation
  - Principles of Pharmacology
  - Medication Administration
  - Emergency Medications
  - Patient Assessment
    - o Scene Size-Up
    - o Primary Assessment
    - History Taking
    - o Secondary Assessment & Reassessment
    - Monitoring Devices
    - Cardiovascular Emergencies

### **COURSE ACTIVITIES:**

Course activities vary from course to course and instructor to instructor. Below is a listing of some of the activities students can anticipate in this course:

- <u>Writing assignments</u>: students will analyze current issues in the field using current articles from the popular press as well as library research including electronic resources databases.
- ▶ <u>Speaking assignments</u>: students will present research individually or in groups using current technology to support the presentation (e.g., PowerPoint presentation); students will participate in discussions and debates related to the topics in the lessons. Discussions may also focus on cross-cultural and legalethical dilemmas as they relate to the course content.
- ▶ <u>Simulation activities</u>: Trends and issues will analyzed for their ethical as well as social or legal significance. Students might role-play common situations for classmates to analyze. Current news articles may be used to generate discussion.
- ▶ <u>Case Studies</u>: Complex situations and scenarios will be analyzed in cooperative group settings or as homework assignments.
- ▶ <u>Lectures:</u> This format will include question and answer sessions to provide interactivity between students and instructor.
- **Speakers:** Representatives from various related fields may be invited to speak.
- ▶ <u>Videos</u>: Related topics will provide impetus for discussion.

### **EDUCATIONAL TECHNOLOGY:**

Rowan College at Burlington County advocates a technology enhanced teaching and learning environment. Advanced technological tools may be used in any course section to facilitate instruction. Many of our sections are web-enhanced, which means that some of your work will be submitted or completed online. Web enhancements may include online materials, grade books, testing and quizzes and assignment submission. Many students enjoy the flexibility and convenience that these online enhancements have provided, however if you have concerns about the technology involved, please speak to your instructor immediately.

### **STUDENT EVALUATIONS:**

The student will be evaluated on the degree to which student learning outcomes are achieved. A variety of methods may be used such as tests, quizzes, class participation, projects, homework assignments, presentations, etc.

See individual instructor's course handouts for grading system and criteria (point value for each assessment component in course, e.g. tests, papers, presentations, attendance

etc.), number of papers and examinations required in the course, and testing policy including make ups and/or retests.

# **GRADING STANDARD:**

- A Mastery of essential elements and related concepts, plus demonstrated excellence or originality.
- B+ Mastery of essential elements and related concepts, showing higher level understanding.
- B Mastery of essential elements and related concepts.
- C+ Above average knowledge of essential elements and related concepts.
- C Acceptable knowledge of essential elements and related concepts.
- D Minimal knowledge of related concepts.
- F Unsatisfactory progress. This grade may also be assigned in cases of academic misconduct, such as cheating or plagiarism, and/or excessive absences.

For other grades, see the current ROWAN COLLEGE AT BURLINGTON COUNTY catalog.

### **COLLEGE POLICIES:**

The current college catalog and student handbook are important documents for understanding your rights and responsibilities as a student in the RCBC classroom. Please read your catalog and handbook as they supplement this syllabus, particularly for information regarding:

- ► Academic Integrity Code
- Student Conduct Code
- ► Student Grade Appeal Process

### OFFICE OF STUDENT SUPPORT AND DISABILITIES SERVICES:

RCBC welcomes students with disabilities into the college's educational programs. Access to accommodations and support services for students with learning and other disabilities is facilitated by staff in the Office of Student Support (OSS). In order to receive accommodations, a student must contact the OSS, self-identify as having a disability, provide appropriate documentation, and participate in an intake appointment. If the documentation supports the request for reasonable accommodations, the OSS will provide the student with an Accommodation Plan to give to instructors. Contact the Office of Student Support at 609-894-9311, ext. 1208 or visit the website at: www.rcbc.edu/studentsupport

### ADDITIONAL SUPPORT/LABS:

RCBC provides academic advising, student support personal counseling, transfer advising, and special accommodations for individuals with disabilities free to all students through the Division of Student Services. For more information about any of these

services, visit the Laurel Hall on the Mt. Laurel Campus, or call (609) 894-9311 or (856) 222-9311, then dial the desired extension:

- Ext. 1557 Academic Advisement and Counseling
- Ext. 1803 Special Populations
- Ext. 2737 Transfer Center

Or visit the following websites:

Academic Advising <a href="https://www.rcbc.edu/advising">www.rcbc.edu/advising</a>
Student Support Counseling
Transfer Center <a href="https://www.rcbc.edu/transfer">www.rcbc.edu/counseling</a>
www.rcbc.edu/transfer

RCBC offers a free tutoring for all currently enrolled students. For more information regarding The Tutoring Center call Extension 1495 at (609) 894-9311 or (856) 222-9311 or visit the Tutoring Center Website at <a href="https://www.rcbc.edu/tutoring">www.rcbc.edu/tutoring</a>

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