



Nursing and Health Professions Division  
1400 Tanyard Road Sewell, NJ 08080  
856-468-5000

## **PHY 241: Forensic Science I**

Syllabus

Lecture hours/Lab hours/Credits: 3/3/4

### **Catalog Description**

*Prerequisite: for Criminal Justice majors CRJ 101. All others: RDG099 and MAT050*

Designed for the non-science major, this course is an introduction to the applications of the physical, chemical, and biological principles necessary to provide students with a basic understanding of forensic science as the intersection of these different scientific areas. The use of fundamental scientific principles in laboratory experiments will provide students with an appreciation of modern forensic techniques.

### **Textbook and Course Materials**

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

Click here to see current textbook prices at [rcgc.bncollege.com](http://rcgc.bncollege.com).

### **Evaluation Assessment**

#### **Online Proctoring**

All courses offered at RCSJ, whether they are web-enhanced, hybrid, or fully online, may include assessments that make use of Online Proctoring. To find out more about Online Proctoring, and to learn about the minimum technical requirements, visit [rcsj.edu/elearning/online-proctoring](http://rcsj.edu/elearning/online-proctoring).

### **Grading Distribution**

Grading to be determined by individual instructors.

Individual instructors may include the following assessment(s):

- Exams
- Quizzes
- Class Discussions
- Written Assignments
- Detailed Laboratory Reports
- Attendance and Participation

<b>Grading</b>	B- = 83%-85%	D = 67%-70%
A = 96%-100%	C+ = 80%-82%	D- = 64%-66%
A- = 93%-95%	C = 77%-79%	F = Below 64%
B+ = 90%-92%	C- = 74%-76%	
B = 86%-89%	D+ = 71%-73%	

## Rowan College South Jersey Core Competencies

(Based on the NJCCC General Education Foundation - August 15, 2007; Revised 2011; Adopted 2014)

This comprehensive list reflects the core competencies that are essential for all RCSJ 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.

1. **Written and Oral Communication:** Students will communicate effectively in both speech and writing.
2. **Quantitative Knowledge and Skills:** Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems
3. **Scientific Knowledge and Reasoning:** Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.
4. **Technological Competency:** Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals
5. **Society and Human Behavior:** Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.
6. **Humanistic Perspective:** 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. **Historical Perspective:** Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.
8. **Global and Cultural Awareness:** Students will understand the importance of a global perspective and culturally diverse peoples.
9. **Ethical Reasoning and Action:** Students will understand ethical issues and situations.
10. **Information Literacy:** Students will address an information need by locating, evaluating, and effectively using information.

## PHY 241 Core Competencies

This course focuses on three of RCSJ's Core Competencies:

- Oral & Written Communication
- Scientific Knowledge and Reasoning
- Teamwork

### Student Learning Outcomes: Forensics I

Successful completion of PHY 241 will help students:	RCSJ's Core Competencies	Evaluation/Assessment (Additional means of evaluation may be included by individual instructors)
1. Describe and explain the definition of and history of forensic science, examining the timeline and significant players in the field of forensic science.	Oral Communication Written Communication	Observation/Discussion Quizzes & Examinations Critical Thinking Rubric
2. Identify the specialized fields which contribute to the forensic investigation of crime to the science applications used in investigation.	Oral Communication Written Communication	Observation/Discussion Quizzes & Examinations Critical Thinking Rubric
3. Identify physical evidence and its value and recognize how it provides leads. Employ the scientific method for recording, collecting, labeling and storing crime scene evidence and use mathematics and logic in analyses.	Oral Communication Written Communication Scientific Knowledge and Reasoning	Observation/Discussion Laboratory & Field Exercises Detailed Laboratory Reports Self & Team Assessment Teamwork Rubric Critical Thinking Rubric Laboratory Report Rubric
4. Apply forensic examination and comparison techniques on evidence, including fingerprints and firearms, and report the findings.	Oral Communication Written Communication Scientific Knowledge and Reasoning	Laboratory & Field Exercises Detailed Laboratory Reports Self & Team Assessment Survey Teamwork Rubric Critical Thinking Rubric Laboratory Report Rubric
5. Manage time effectively and pursue set objectives while working safely in a laboratory or field environment. Utilize word-processing to demonstrate basic computer literacy.	Oral Communication Written Communication Scientific Knowledge and Reasoning	Laboratory & Field Exercises Detailed Laboratory Reports Self & Team Assessment Survey Teamwork Rubric

Successful completion of PHY 241 will help students:	RCSJ's Core Competencies	Evaluation/Assessment (Additional means of evaluation may be included by individual instructors)
		Critical Thinking Rubric Laboratory Report Rubric
6. Work collaboratively by expressing opinion with tact, listening to others, and shouldering the appropriate share of the workload. Distinguish opinions from facts.	Oral Communication Written Communication Scientific Knowledge and Reasoning	Laboratory & Field Exercises Detailed Laboratory Reports Self & Team Assessment Survey Teamwork Rubric Critical Thinking Rubric Laboratory Report Rubric
7. Employ the scientific method to classify, analyze & identify fingerprints.	Oral Communication Written Communication Scientific Knowledge and Reasoning	Critical Thinking Rubric Observation & Discussion Laboratory & Field Exercises Detailed Laboratory Reports Quizzes & Examinations Self & Team Assessment Survey Teamwork Rubric Laboratory Report Rubric

## PHY241 TOPICAL OUTLINE

<u>Lecture</u>	<u>Lab</u>
Crime Scene	Crime Scene
Physical Evidence	Measurements
Crime Scene Reconstruction	Spectrophotometry-color
Fingerprints	Fingerprints Identification
Microscope	Fingerprint Development
Firearms, Tool Marks, Impressions	Firearms Identification
Matter, Light, and Glass	Density and Physical Properties
Hairs and Fibers	Chemical and Physical Tests
Drugs	
Serology	

## **Affirmative Action Statement**

The Board of Trustees is committed to providing a work and academic environment that maintains and promotes affirmative action and equal opportunity for all employees and students without discrimination on the basis of certain enumerated and protected categories. These categories are race, creed (religion), color, national origin, nationality, ancestry, age, sex (including pregnancy and sexual harassment), marital status, domestic partnership or civil union status, affectional or sexual orientation, gender identity or expression, atypical hereditary cellular or blood trait, genetic information, liability for military service, or mental or physical disability, including AIDS and HIV related illnesses.

For questions concerning discrimination, contact Almarie J. Jones, Special Assistant to the President, Diversity and Equity/Title IX and Compliance, 856-415-2154 or [ajones@rcsj.edu](mailto:ajones@rcsj.edu) or (Cumberland) Nathaniel Alridge, Jr., JD, Director, Diversity and Equity/Title IX and Judicial Affairs, 856-691-8600, ext. 1414 or [nalridge@rcsj.edu](mailto:nalridge@rcsj.edu). For disability issues or any barriers in the learning or physical environment related to a document condition/disability please contact: Gloucester campus – Carol Weinhardt, Director, Department of Special Services, ADA/504 Officer at 856-415-2247 or [cweinhar@rcsj.edu](mailto:cweinhar@rcsj.edu); or Cumberland Campus – Meredith Vicente, Senior Director, Department of Special Services/Project Assist at 856-200-4688 or [mvicent1@rcsj.edu](mailto:mvicent1@rcsj.edu)

## **Department of Special Services**

The Department of Special Services is committed to providing support services and ensuring equal access to eligible students with documented conditions/disabilities as outlined by the Americans with Disabilities Act (ADA) and the Americans with Disabilities Act with Amendments Act (ADAAA).

### **(Gloucester Campus Location and Contact)**

Location: Instructional Center, room 425A.

Primary Contact: Director, Carol Weinhardt, (email) [cweinhar@rcsj.edu](mailto:cweinhar@rcsj.edu); or (phone) 856-415-2247.

### **(Cumberland Campus Location and Contact)**

Location: Center for Academic & Student Success (CASS)

Primary Contact: Senior Director, Meredith Vicente, (email) [mvicent1@rcsj.edu](mailto:mvicent1@rcsj.edu); or (phone) 856-200-4688.

## Reporting Allegations of Sexual Assault and Resource Referrals (08/2021)

### Gloucester Campus

There are multiple safe places for students to report allegations of sexual assault, both on and off campus. Reports of sexual assault can be made to any of the following offices listed in the chart below.

All students are encouraged to report alleged crimes on campus. Crimes that pose a threat to the campus community must be reported to **9-1-1**, Security, the Sheriff's Office or the Deptford Township Police Department. All employees, including Security staff, must report incidents of discrimination, harassment or sexual misconduct to the Title IX Officer.

Service	Resource	Phone Number/Location/Website
<b>Non-Confidential Reporting</b>  Local Law Enforcement	Gloucester County Sheriff's Office Deptford Township Police Dept. Gloucester Co. Prosecutor's Office Sexual Assault Response Team	856-681-2200 856-845-2220 856-384-5500 856-384-5555
<b>Non-Confidential Reporting 9-1-1 and Campus Security</b>	<b>9-1-1</b> Gloucester County Emergency Management Dispatch Campus Security Blue Light Emergency Phones <u>or</u> ext. 4444 from any campus desk phone	<b>9-1-1 or push RED button on Campus Blue Light Emergency Phones</b>  856-681-6287
<b>Non-Confidential On-Campus Reporting Support Services</b>	Almarie J. Jones Special Assistant to the President Diversity and Equity/Title IX and Compliance  John F. Ryder Director, Student and Veteran Affairs	856-415-2154 College Center, Room 116 <a href="mailto:ajones@rcsj.edu">ajones@rcsj.edu</a>  856-468-5000, ext. 6456 College Center, room 202 <a href="mailto:jryder@rcsj.edu">jryder@rcsj.edu</a>
<b>Confidential On-Campus Counseling and Support Services</b>	Lois Y. Lawson-Briddell, Ph.D. MSW, LSW, Director Counseling & Wellness Services Center  William Leonard, Ph.D. Intervention Teams Consultant  Crystal Noboa, LSW, MSW Director, The Center for People in Transition (PIT)  Diane Mussoline, EdS, LMFT Executive Director of Behavioral Services	856-464-5236 <a href="mailto:llawsonb@rcsj.edu">llawsonb@rcsj.edu</a> College Center, Room 206  856-415-2119 <a href="mailto:wleonard@rcsj.edu">wleonard@rcsj.edu</a> College Center, STEM Office C-168  856-415-2264 <a href="mailto:cnoboa@rcsj.edu">cnoboa@rcsj.edu</a> Career & Technical Education Center, Room 809, 1492 Tanyard Road  856-494-5665 <a href="mailto:dmussoli@rcsj.edu">dmussoli@rcsj.edu</a> Rowan University Center, Room 200A
<b>Confidential Off-Campus Full-Service Support</b>	Center for Family Services/ Services Empowering Rights of Victims (SERV)	1-866-295-7378 Camden and Gloucester counties <a href="http://www.centerffs.org/serv">www.centerffs.org/serv</a>
<b>Hospitals with Sexual Assault Nurse Examiners</b>	Inspira Medical Center  Jefferson Washington Township Hospital	700 Mullica Hill Road, Mullica Hill, NJ 08062 856-508-1000  435 Hurffville-Crosskeys Rd., Turnersville, NJ 856-582-2500