RADIOGRAPHY

**CODE:** RAD 224  
**TITLE:** Clinical Procedures IV

**DIVISION:** Health Sciences

**COURSE DESCRIPTION:** This course focuses on students learning to perform radiographic procedures of the biliary, digestive, reproductive, and urinary systems. Hands-on instruction in the proper use of fixed and mobile radiographic equipment and application of theoretical principles are demonstrated in a laboratory setting. Subsequent hands-on experience is provided under the direct supervision of qualified radiographers. Achieved competency is measured and pertinent initial and continual clinical competency is performed.

**PREREQUISITE:** RAD 123

**CREDITS:** 6 cr.

**REQUIRED MATERIALS (CHECK BOOKSTORE FOR LATEST EDITION):**
Click on the bookstore for the supplies which you are attending each class.  
[rcbc.edu/bookstore](http://rcbc.edu/bookstore)

**COURSE LEARNING OUTCOMES:**
Upon completion of this course, students will be able to:

- Identify anatomic structures and relevant topographic landmarks of the digestive, biliary, reproductive and urinary systems;
- Demonstrate knowledge of patient preparations for body system procedures;
- Identify, explain and demonstrate all body system projection positioning;
- Demonstrate knowledge of room and accessory preparation for procedures of the above listed body systems;
- Explain the purpose for using contrast media for procedures of the above listed body systems;
- Differentiate between positive and negative contrast agents.
- Identify the type, dosage and route of administration of contrast media for the above listed body systems.
- Adapt general procedural considerations to specific clinical settings.
- Recognize reactions to contrast media and follow emergency procedures to ensure patient safety;
- Demonstrate knowledge of radiographic positioning and procedures of the previously listed body systems;
- Apply appropriate methods of radiation protection for the patient and all personnel during radiographic procedures of the previously listed body systems;
- Identify anatomical structures demonstrated in the finished radiograph;
- Evaluate the finished radiograph for positioning, exposure factors, evidence of radiation protection, film identification and other technical considerations;
- Identify any errors that have been made in the process of making the radiograph as based on the previous goals;
- Recognize normal radiographic anatomy and pathogenic processes that appear on the finished radiograph.

**General Education Outcomes in This Course:**

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<th>Written and Oral Communication: Communication</th>
<th>* Students will logically and persuasively support their points of view or findings.</th>
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<td>* Students will communicate meaningfully with a chosen audience while demonstrating critical thought.</td>
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<td>* Students will conduct investigative research which demonstrates academic integrity, originality, depth of thought, and mastery of an approved style of source documentation.</td>
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<th>Quantitative Knowledge and Skills: Mathematics</th>
<th>* Students will analyze data to solve problems utilizing appropriate mathematical concepts.</th>
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<td>* Students will translate quantifiable problems into mathematical terms and solve these problems using mathematical or statistical operations.</td>
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<td>* Students will logically solve problems using the appropriate mathematical technique.</td>
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<th>Scientific Knowledge and Reasoning: Science</th>
<th>* Students will understand and employ the scientific method of inquiry to draw conclusions based on verifiable evidence.</th>
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<td>* Students will demonstrate critical thinking skills in the analysis of scientific data.</td>
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<td><strong>Course Title</strong></td>
<td><strong>Objectives</strong></td>
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<td>Society and Human Behavior: Social Science</td>
<td>* Students will demonstrate a general knowledge of political, social and economic concepts and systems and their effects on society.</td>
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<td>Technological Competency or Information Literacy: Technology</td>
<td>* Students will demonstrate competency in office productivity tools appropriate to continuing their education.</td>
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<td>* Students will use critical thinking skills for computer-based access, analysis, and presentation of information.</td>
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<td>* Students will exhibit competency in library online database tools appropriate to accessing information in reference publications, periodicals and bibliographies.</td>
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<td>* Students will demonstrate the skills required to find, evaluate, and apply information to solve a problem.</td>
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<td>Global and Cultural Awareness: Diversity</td>
<td>* Students will be able to compare and contrast cultural norms from diverse populations.</td>
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<td>* Students will be able to explain how communication and culture are interrelated.</td>
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<td>* Students will be able to examine how multicultural societies and peoples help engender a richer understanding of diverse life experiences.</td>
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<td>Ethical Reasoning and Action</td>
<td>* Students will analyze and evaluate the strengths and weaknesses of different perspectives on an ethical issue or a situation.</td>
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<td>* Students will take a position on an ethical issue or a situation and defend it.</td>
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**CORE COURSE CONTENT:**

- Mobile radiography
- Introduction GI system anatomy
- Complete GI system anatomy
- Upper GI system positioning
- Complete upper and lower GI positioning
• Biliary system anatomy  
• Biliary system positioning  
• Urinary system anatomy  
• Urinary system positioning  
• Female reproductive system anatomy  
• Female reproductive system positioning  
• Male reproductive system anatomy  
• Male reproductive system positioning  
• Patients and room preparations

**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:

- **Writing assignments:** Students will analyze current issues in the field using current articles from the popular press as well as library research including electronic resources databases.

- **Speaking assignments:** 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 legal-ethical dilemmas as they relate to the course content.

- **Simulation activities:** Trends and issues will be 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.

- **Case Studies:** Complex situations and scenarios will be analyzed in cooperative group settings or as homework assignments.

- **Lectures:** 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.

- **Videos:** 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 on-
line 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 www.rcbc.edu/advising
- Student Support Counseling www.rcbc.edu/counseling
- Transfer Center 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 www.rcbc.edu/tutoring

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