

Common Course Outline

RADT 203

Radiography V

8 Semester Hours

The Community College of Baltimore County

Description

RADT 203 -8 credits – Radiography V is the eighth course in the sequence of radiography courses that comprises the professional portion of the radiography curriculum. It consists of both a didactic and a clinical portion. The didactic portion of RADT 203 consists of four (4) modules: Interventional Radiography, Radiographic Pathology, Registry Review, and Professional Development. During the clinical portion of the RADT 203, students will continue to achieve additional clinical skills by participating in the actual procedures performed in a radiology/medical imaging department.

Credit Hours: 4 lecture hours, 24 clinical hours, and 2 lab hours per week

Pre-requisites: RADT 221

Overall Course Objectives

Upon successful completion of Module 1, Interventional Radiography, students will be able to:

1. discuss indications for radiology and cardiology angiographic/interventional procedures;
2. describe the primary pieces of equipment found in an angiographic/ interventional suite;
3. describe patient care procedures relating to angiographic/interventional procedures;
4. given various angiographic images, identify the specific procedure being done and the structures visualized;
5. describe the equipment/supplies including contrast media, patient preparation/ instructions, patient position, imaging receptor selection/placement, beam alignment/ angulation, and general procedure for:
 - a. thoracic aortography
 - b. cerebral angiography
 - c. pulmonary angiography
 - d. splenoportography
 - e. renal angiography
 - f. abdomen and extremity angiography;
6. discuss the purpose of commonly performed vascular and non-vascular interventional procedure; and
7. discuss special considerations with pediatric and geriatric patients.

Upon successful completion of Module 2, Radiographic Pathology, students will be able to:

1. define terms related to pathology;
2. discuss manifestations of pathological conditions and their relevance to radiologic procedures;
3. describe the morphological classifications of disease;

4. for each of the systemic classifications of disease, describe etiology, examples and site, complications and prognosis;
5. explain the role of radiology/medical imaging in the diagnosis and treatment of diseases discussed in each of the systemic classifications;
6. recognize pathology that requires an alteration in standard imaging procedures;
7. assess the appropriateness of ordered radiology/medical imaging exams;
8. provide appropriate assistance in exam interpretation; and
9. utilize Blackboard Discussion Board for postings and Assessment Tools for quizzes/tests.

Upon successful completion of Module 3. Registry Review, students will be able to:

1. describe the ARRT Registry exam and fill out its application;
2. describe the State of Maryland's Licensure process and fill out its application;
3. discuss the ethics portion of the ARRT eligibility process;
4. review the major topics covered in the Radiography program: Exposure, Imaging, Positioning, Patient Care, Radiation Protection, etc...;
5. attend the two-day Registry Review seminar at Anne Arundel Community College; and
6. complete Registry-type quizzes and exams with the Corectec software.

Upon successful of Module 4, Professional Development, students will be able to:

1. define medicolegal terms relating to the practice of radiology;
2. discriminate between professional & legal standards & describe how each relates to radiography practice;
3. discuss the elements necessary for a valid malpractice claim;
4. describe the elements necessary for informed consent;
5. discuss institutional and professional liability protection typically available to the radiographer;
6. prepare a legitimate resume to seek a position as a radiographer;
7. discuss the do's and don'ts of employment interviewing;
8. be interviewed by local HR representatives;
9. discuss of the concept of Performance Improvement (PI) as it applies to hospitals and radiology department;
10. conduct a PI study following JCAHO standards in a radiology department. Identify issue, collect data, analyze data, draw conclusions, and report results;
11. describe the special needs of a culturally diverse patient population; and
12. learn a few words of basic medical Spanish.

During the clinical education portion of RADT 203, students will:

1. complete final comprehensive laboratory evaluations (simulations);
2. present films for image evaluation in category VI (skull and face);
3. present films performed under **INDIRECT SUPERVISION** for image evaluation;
4. complete all competency tests, including category IV (spine and bony thorax), category V (contrast studies, digestive and urinary), and category VI (skull and face);
5. complete area-specific performance objectives for scheduled RADT 203 clinical areas and all final semester-based performance objectives; and
6. demonstrate appropriate professional behavior while on clinical duty.

Major Topics

List of major topics in outline form.

- I. Interventional Radiography
 - a. Radiography and cardiology angiographic procedures
 - b. Angiographic equipment
 - c. Angiographic images
 - d. Angiographic procedures
 1. thoracic aortography
 2. cerebral angiography
 3. pulmonary angiography
 4. splenoportography
 5. renal angiography
 6. abdomen and extremity angiography
 - e. Vascular and non-vascular procedures
 - f. Pediatric and geriatric patients
- II. Radiographic Pathology
 - a. Definitions
 - b. Pathological conditions
 - c. Morphological classifications of disease
 - d. Systematic classifications
 - e. Alteration in standard imaging procedures
 - f. Exam appropriateness and ordering
- III. Registry Review
 - a. ARRT Registry exam
 - b. State of Maryland licensure
 - c. Ethics portion of ARRT eligibility
 - d. Major topic review
 1. Positioning
 2. Radiographic Exposure
 3. Radiographic Imaging
 4. Patient Care
 5. Radiation Protection
 - e. Registry review seminar
 - f. Registry review software
- IV. Professional Development
 - a. Resumes and interviewing techniques
 - b. Culture and diversity
 - c. Medicolegal aspects
 - d. Performance Improvement

Course Requirements

Grading/exams:

I. Attendance, Dress Code, & Ethics **5 points**
minus 0.5 point for each absence or late minus 1.0 point for a "NO-CALL"
Absence from three or more classes or three or more absences from clinical may lower the course grade one letter unless documented by a physician's written note
minus 0.5 point for each infraction of the dress code, minus 1.0 point for each infraction after 1st notice
Students must be appropriately attired to be permitted in the clinical area.

Attendance at the SHP Student Recognition Ceremony, AACC Registry Review Seminar, and Radiography Program Pinning Ceremony is mandatory in appropriate attire for the occasion. Attendance at CCBC Graduation is optional.

II. Performance Objectives **10 points**
Room-based objectives are due in the program office on the Thursday morning following end of clinical rotation, except for the end of the semester. All objectives, including semester-based objectives, are due at the start time of the final semester exam.

III. Clinical Evaluations **5 points**
Clinical evaluations are to be completed weekly by the supervising clinical staff.
Due at 8 AM on the Thursday following end of clinical rotation

III. Laboratory Evaluations (Simulations and Exposure Experiments) **5 points**
Minus 0.5 points for each "unprepared" lab.

IV. Image Evaluations, PIE's (Personal Image Evaluations) **5 points**
Students are responsible for completing 2 preliminary image evaluations (PIE's) on Contrast Studies and 2 PIE's on pediatrics. PIE's are 10% of Image grade.

V. Competency Evaluations **5 points**
All competency tests must be successfully completed for RADT 203.

VII. Quiz Average **10 points**
Corectec quizzes and any assignment counted as a quiz grade will be included here.

VIII. Test Average **20 points**
Corectec tests will be averaged for one test grade for the Registry Review module.

IX. Final Comprehensive Exam **35 points**
100 points

Other Course Information

As the eighth and final radiography specific course, RADT 203 provides opportunities in hospitals and private radiology offices for students to build upon their knowledge of radiographic and fluoroscopic examinations. During RADT 203 students assist with and participate in actual procedures performed in a radiology/medical imaging department. After documenting competency in specific radiographic exams, students will perform those exams under INDIRECT SUPERVISION to build proficiency in radiography.

Date Revised: 8/21/12