

COURSE DESCRIPTIONS
Hudson County Community College Radiography Program

Class of 2018

Ad: 6/2015; rev,10/2015; 7/2016

The curriculum for the 24 month program is as follows:

Didactic and Clinical Courses

Pre/Co-Requisites

RAD 101- 60 hrs Radiography I

**Pre-None
Co-Rad 104**

Course Description:

Content is designed to provide an overview of the general principles of patient care, ethics and medico-legal standards. Principles of mathematical formulas, prime factors and electromagnetic energy are introduced. Equipment operation introduces the use of grids, screens, darkroom and digital imaging processing, and all components involved in image production including quality control. The foundation of radiation protection and safety standards in radiographic imaging is emphasized. History of radiography, career opportunities and human diversity and its relationship in the health care system is covered. Learning the basics of medical terminology for use in the health care environment is given.

RAD 104- 45 hrs Radiographic Imaging I/Lab

**Pre-None
Co-Rad 101**

Course Description:

In this first course, anatomy and positioning terminology and their procedure protocols for chest, abdomen, and upper extremity are presented. Demonstration of applicable factors and radiation protection methods are learned in order to achieve quality radiographs while providing compassionate and optimum patient care. Clinical lab experience will compliment didactic instruction.

CLP 1 -154 hrs

Clinical Practicum 1

**Pre-None
Co-Rad 104**

Course Description:

Content is designed to allow the student sequential development of skills needed to complete the required clinical competency evaluations mandated by the JRCERT and the State of New Jersey Board of Examiners for accredited radiography programs. Patient care, assessment, positioning skills, and the student's ability to apply and integrate these concepts will be evaluated.

RAD 102- 60 hrs Radiography II

**Pre-Rad 101;104; CLP 1
Co-Rad 105; CLP 2**

Course Description:

Content builds upon the foundation of image production identifying the prime components of radiographic image quality and its control. Equipment operations of fluoroscopy types along with basic QA testing is covered. Radiation protection and biology discuss radiation interaction with atoms and cellular structures. Patient care methodologies are continued emphasizing imaging techniques for mobile, OR and trauma patients.

RAD 105- 45 hrs Radiographic Imaging II/ Lab

**Pre- Rad 101;104; CLP 1
Co- Rad 102; CLP 2**

Course Description:

In this second course of imaging series, anatomy and positioning terminology and their procedure protocols for lower extremity, shoulder and pelvic girdles, ribs and sternum as well as pediatric and geriatric methodologies are learned. Patient care protocols are always emphasized. Clinical lab experience will compliment didactic instruction.

CLP 2- 224 hrs

Clinical Practicum 2

**Pre- Rad 101;104; CLP 1
Co- Rad 102; 105**

Course Description:

Content is designed to allow the student sequential development of skills needed to complete the required clinical competency evaluations mandated by the JRCERT and the State of New Jersey Board of Examiners for accredited radiography programs. Patient care, assessment, positioning skills, and the student's ability to apply and integrate these concepts will be evaluated.

RAD 103- 30 hrs

Radiography III

**Pre- Rad 101;104;102;105; CLP 1; 2
Co- Rad 106; CLP 3**

Course Description:

Patient Care introduces the relationship of pharmacology to contrast media studies along with learning venipuncture technique and patient assessment skills. Principles of exposure will discuss x-ray equipment, exposure charts, the differences in analog to digital imaging, and the basic understanding of technical factor usage will be introduced. Advanced modalities, such as CT, Nuclear Medicine, MRI, Radiation Oncology, and Interventional imaging are covered to help prepare students for senior year clinical rotations.

RAD 106- 15 hrs

Radiographic Imaging III/ Lab

**Pre- Rad 101;104;102;105; CLP 1; 2
Co- Rad 103; CLP 3**

Course Description:

In this third course of imaging series, anatomy and positioning terminology and their procedure protocols for the entire spinal column are presented. Patient Care protocols are always emphasized. Clinical lab experience will compliment didactic instruction.

CLP 3- 168 hrs

Clinical Practicum 3

**Pre- Rad 101;104;102;105; CLP 1; 2
Co- Rad 106; 103**

Course Description:

Content is designed to allow the student sequential development of skills needed to complete the required clinical competency evaluations mandated by the JRCERT and the State of New Jersey Board of Examiners for accredited radiography programs. Patient care, assessment, positioning skills, and the student's ability to apply and integrate these concepts will be evaluated.

RAD 204- 60 hrs

Radiography IV

**Pre- Rad 101;104;102;105;103; CLP 1; 2; 3
Co- Rad 207; CLP 4**

Course Description:

Principles of Computed Technology (CT) usage, image production, and equipment is introduced in addition to contrast media administration for common CT procedures. Advanced principles of digital radiography along with introduction to common digital imaging peripheral equipment will be discussed.

RAD 207- 45 hrs

Radiographic Imaging IV /Lab

**Pre- Rad 101;104;102;105;103; CLP 1; 2; 3
Co- Rad 204; CLP 4**

Course Description:

In this last course of imaging series, anatomy and positioning terminology and their procedure protocols for contrast studies, skull, and advanced studies such as Myelography, Arthrography and ERCP are learned. Patient care protocols are always emphasized. Clinical lab experience will compliment didactic experience.

CLP 4- 336 hrs.

Clinical Practicum 4

**Pre- Rad 101;104;102;105;103; CLP 1; 2; 3
Co-Rad 204; 207**

Course Description:

Content is designed to allow the student sequential development of skills needed to complete the required clinical competency evaluations mandated by the JRCERT and the State of New Jersey Board of Examiners for accredited radiography programs. Patient care, assessment, positioning skills, and the student's ability to apply and integrate these concepts will be evaluated.

RAD 205- 60 hrs.

Radiography V

**Pre- Rad 101;104;102;105;103;204;207; CLP 1; 2; 3; 4
Co- CLP 5**

Course Description:

This course is a continuation of RAD 101,102, 103,& 204. Cross Sectional anatomy is continued teaching the relationship of sectional imaging components for the demonstration of cross sectional anatomy of the head, thorax , and abdomen. Image display will be analyzed. Circuit and tube construction is revisited. Comparison of atomic interactions effect on exposure and ALARA. The uses for various technical factors and concepts are covered along with how different pathological conditions affect the image. Radiographic Pathology presents basic information on the pathologic process and its appearance in diagnostic imaging in addition to a student presentation of an imaged disease. Students will create Critical thinking radiographic analysis projects affirming their understanding of image production and evaluation. Principles of exposure will incorporate technical factor conversions for the control panel, along with understanding the relationship of patient body habitus and patient dosage.

CLP 5- 336 hrs.

Clinical Practicum 5

**Pre-Rad101;104;102;105;103;204;207; CLP 1; 2; 3; 4
Co- Rad 205**

Course Description:

Content is designed to allow the student sequential development of skills needed to complete the required clinical competency evaluations mandated by the JRCERT and the State of New Jersey Board of Examiners for accredited radiography programs. Patient care, assessment, positioning skills, and the student's ability to apply and integrate these concepts will be evaluated.

RAD 208-15 hrs.

Radiography VI

**Pre- Rad101;104;102;105;103;204;207;205; CLP 1; 2; 3; 4 ; 5
Co- CLP 6**

Course Description:

A general comprehensive review of all learned material prepares the student for the upcoming ARRT national registry examination. Content Specifications, test taking preparation, and continuing education opportunities will be discussed. Students will be required to pass mock simulated registry exams and comprehensive tests by the required 80% grade in order to pass this final course in order to graduate.

CLP 6 - 210 hrs.

Clinical Practicum 6

**Pre-Rad101;104;102;105;103;204;207;205;CLP 1; 2; 3; 4; 5; 6
Co-Rad 208**

Course Description:

Content is designed to allow the student sequential development of skills needed to complete the required clinical competency evaluations mandated by the JRCERT and the State of New Jersey Board of Examiners for accredited radiography programs. Patient care, assessment, positioning skills, and the student's ability to apply and integrate these concepts will be evaluated.