

BERGEN COMMUNITY COLLEGE
DIVISION OF HEALTH PROFESSIONS
Radiography Program
Spring 2016

COURSE SYLLABUS and STUDY for Lecture and Laboratory

A. GENERAL COURSE INFORMATION

Title: Radiography II

Code: RAD 281- 001, 002, 003, and 004

Credits: 4

Semester: Spring Semester
a) 3 lecture hours/ week
b) 3 laboratory hours/ week

Prerequisites: a) RAD 180- Introduction to Radiography
b) RAD 181- Radiography 1
c) RAD 182- Clinical I

Co-requisites: a) RAD 276 Principles of Imaging Equipment
b) RAD 282 Radiography Clinical II

B. COURSE INSTRUCTORS

Instructor: Professor Elizabeth M. Romano, MS.Ed. R.T.(R)(M)
Office: L-114
Email: eromano@bergen.edu
Phone: 201-493-3577

C. COURSE DESCRIPTION RAD 281 - Radiography II, continues to introduce the student to the study of radiography and the ethical considerations of this medical field. The theory and application of positioning, radiation protection techniques, and radiographic exposure, along with associated film critiques and laboratory experiments are covered in this course.

D. NARRATIVE STATEMENT OF PURPOSE The purpose of this course is to:

- To continue to become familiar with all aspects of modern radiography and how it relates to patient care in the hospital.
- To continue basic and some complex positioning principles and practices.

- To continue developing the processes of analysis, critical thinking and problem solving.
- To become proficient in all phases of radiography in the college's affiliated hospitals and practice related studies under the supervision of clinical faculty and designees.
- To maximize "practice" time in the BCC based energized laboratory, utilizing phantoms.
- To comply with a competency-based education system, with respect to lectures, observing, testing, demonstrations and competency evaluations.

E. COURSE OBJECTIVES *Upon completion of the lectures and laboratory sessions,, the radiography student will be able to:*

- Explain the technical factors and their function on image quality.
- Explain the body position, part centering, central ray direction/ location, anatomy seen and image criteria for radiographic procedures of the:
 - a. lower extremities
 - b. spinal column
 - c. basic contrast media and studies
- Explain modifications as it relates to the study due to a trauma and/or patient limitations.
- Explain and apply principles of radiation safety to clinical practice.
- Identify the routine projections for studies of the lower extremities, spine, pelvis, contrast media, and basic skull.

F. REQUIRED COURSE MATERIALS

- Required texts, radiography notebook, calculator, power-point materials and laboratory part/position worksheets.
- Metallic Initial markers
- A Dosimeter will be provided for both lab and clinical experience. The students are responsible to hand them in to the Clinical Coordinator, when requested to do so.

- Students are expected to bring the textbook to each lecture and lab session.
- Lab Jackets to be worn in the laboratory- this requirement sets the professional tone to the lab experience.

G. TEXTBOOKS

Title: Textbook of Radiographic Positioning and Related Anatomy,
 Author: Bontrager, Mosby Systems,
 Edition: 8th edition
 Title: Bontrager workbook

H. INSTRUCTIONAL STRATEGIES

- Formal lectures
- Discussion
- Laboratory group positioning
- Power-point lecture materials
- Image review in the lab
- Oral presentations of radiographs in the lab
- Labeling of all anatomical structures
- Completion of all related modules
- Review of all procedures in the competency manual
- Other hand-out material

I. FINAL COURSE GRADE DETERMINATION based from the following:

15% Laboratory Practicum (Approximately 2-3)
 30% Quizzes (weekly)
 25% Mid-term Exam
 30% Final Examination

- a. In order to pass RAD 281, the student must successfully pass the mid-term and final examination combined/averaged, with a minimal grade of 77%. In the event the student fails to do so, the grade assigned for the course would be an F grade regardless of any other grade/s earned within the course. (Rationale= this is a foundation course for successful completion of the entire program/career of the graduate).
- b. In order to be eligible to practicum in the laboratory a student must have passed the didactic assessment pertaining to that particular body part or position.

C. All examinations will be kept on file as part of the student's permanent record. Examinations cannot leave the testing area. Students may review all tests, during office hours, prior to the final examination, in L-114.

D. There will be NO make up quizzes for absence or lateness.

E. Grade Assignment Protocol and Policy

Letter grades for each radiography course are assigned as follows:

A 92-100

B+ 89-91

B 83-88.9

C+ 80-82.9

C 77-79.9

D 70-76.9

F 74 and below

J. COURSE SUBJECT MATTER

- Medical terminology
- Patient care practices
- Positioning of the spine, and lower extremities
- Radiographic anatomy, physiology & Pathology
- Radiographic quality
- Principles of radiographic exposure
- Basic principles of radiation protection
- Basic imaging equipment and x-ray production
- Technical factors manipulation
- Application digital and computed radiography

K. WEEKLY LESSONS AND LABORATORY SESSIONS

(Subject to change based upon student learning needs)

- Week 1
- A. Orientation to the course
 - B. Explanation of the syllabus & course requirements
 - C. Review of 1st semester, Ribs and Sternum

- Week 2
- A. Positioning of the toes, heel and foot

- B. Laboratory
 - 1) Radiography of the toes, foot and heel
- Week 3
 - A. Positioning of the ankle and lower leg (tibia & fibula)
 - B. Laboratory
 - 1) Radiography of the ankle and lower leg
- Week 4
 - A. Anatomy and positioning of the knee, patella and intercondyloid fossa
 - B. Laboratory
 - 1) Radiography of the knee, patella and intercondyloid fossa
- Week 5
 - A. Laboratory
 - 1) Practicum # 1
- Week 6
 - A. Anatomy and positioning of the femur, hip and pelvis
 - B. Trauma Modifications
 - C. Laboratory
 - 1) Radiography of the hip, femur and pelvis
 - 2) Trauma projections and methods
- Week 7
 - A. Positioning of the clavicle and scapula.
 - B. Laboratory
 - 1) Radiography of the clavicle and scapula
- Week 8
 - A. Anatomy and Positioning of the sternum and rib cage
 - B. Laboratory
 - 1) Radiography of the sternum and rib cage
- Week 9
 - A. Laboratory
 - 1) Practicum # 2 femur, hip, pelvis, clavicle, scapula, sternum, and rib cage
- Week 10
 - A. Anatomy and positioning of the cervical and thoracic spine
 - B. Trauma modifications
 - C. Laboratory
 - 1) Radiography of the cervical and thoracic spines
- Week 11
 - A. Anatomy and positioning of the lumbar, sacrum and coccyx
 - B. Laboratory
 - 1) Radiography of the lumbar, sacrum and coccyx
- Week 12
 - A. Basic principles of contrast agents
 - B. Anatomy of the urinary tract
 - C. Urography and cystography

- D. Laboratory
 - 1) Radiography of the urinary tract
- Week 13
- A. **INTRODUCTION** to the Anatomy of the entire digestive tract
 - B. GI series
 - C. Small bowels study
 - D. Barium Enema, single and double contrast, ERCP and T-tube cholangiography
 - E. Laboratory (Introductory positioning)
 - 1) GI, single contrast BE and double contrast BE
- Week 14
- A. Practicum #3
- Week 15
- A. Final Examination

Course Policies

Student Preparation Policy In order to maximize the laboratory experience, students must review and study the lecture content before each laboratory session. Please bring the textbook, notebook, workbook, Journal, dosimeter and lab jacket to each laboratory session. Students who are unprepared = no dosimeter, or lab jacket will be sent home with an alternate written assignment.

RATIONALE- (Unlike RAD 181) there is only 1 lab session per week in this course; therefore, students must maximize their laboratory time.

Notice of Changes Policy The student is advised that this document is subject to change. When any change is made the instructor will notify students in class and/or electronically.

Final Examination Policy Examinations will begin promptly and students will be notified well in advance of the start time. Once the exam or test has begun there will be NO admittance into the testing room. The rationale is that late arrivals for tests or exams are distracting to those students who have already begun the testing process, and could negatively impact those students.

**In order to pass RAD 281, the student must acquire an average of a 77% or higher on the mid-term and final examination combined/averaged. In the event the student fails to do so, the grade assigned for the course would be an F grade, regardless of any other grade/s acquired on any test, quiz, practicum, and participation grades in this course.

A final grade of **less** than 77% C is unacceptable. Students earning less than a C or 77% grade will not be permitted to continue/progress in the program until

the course is repeated. Two unsuccessful attempts at ANY radiography course results in permanent dismissal from the program.

Make -Up Test Policy One make-up test/exam will be given to a student that misses one test/exam only; subsequent absences will result in a zero grade. One make-up test/exam is permissible when supported by medical documentation. The instructor does not need personal information. The note must state your limitations and the fact that you are under the care of the physician. In the case of other grievous or emergent situations, the instructor will review each circumstance case by case.

Attendance Policy Your attendance and participation in the classroom and laboratory aspects of the courses is mandatory. Absences in excess of 6-hours are considered excessive.

You are expected to be aware of course start times. You must allot sufficient time for travel and traffic. Late arrivals are distracting to the instructor and other students.

The rationale for the attendance, tardiness, and progression policies is to help the student achieve success with the course and clinical performance. Absences and consistent tardiness not only affects course work, but also clinical performance, and is distracting to those students who consistently arrive on time and are prepared.

Classroom disruptive behaviors policy: Disruptive Behavior will not be tolerated. The instructor has the right to remove you from class if your behavior becomes disruptive to others and affects the learning process.

- talking to others during lectures, demonstrations, quizzes or exams
- Sleeping or laying head down during class
- Swearing and rude or disrespectful behavior
- leaving excessively during lecture or lab.
- Laptop computers are allowed to view course material only. Checking e- mail and other non- related activities is not permitted
- Viewing websites on Laboratory computers must be COURSE related.
- Checking cell phone messages, text messaging, or answering phone calls
- Wearing headphones and/or listening to music

RAD 281 Syllabus Acknowledgement and understanding form:

PRINT:

(Last name)_____

(First name)_____

My signature below indicates that-

- 1) I, have read the syllabus for RAD 281.

- 2) I understand the course policies and I know what is expected, of me, for successful completion of this course.

- 3) I understand that this document is subject to change and that I will be Notified verbally/and or electronically

- 4) I will comply with all course policies.

STUDENT SIGNATURE:_____

DATE:_____