

LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:

This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):

Please check with the LCC bookstore <http://www.labette.edu/bookstore> for the required texts for this class.

COURSE NUMBER: RADI 223

COURSE TITLE: CRITICAL THINKING & ANALYSIS IN RADIOGRAPHY

SEMESTER CREDIT HOURS: 3 Hours

DEPARTMENT: Radiography

DIVISION: Health Science

PREREQUISITE: Entrance into sophomore year of Radiography Program

REVISION DATE: 7 / 2018

COURSE DESCRIPTION:

Comprehensive review course with emphases on critical thinking, problem analysis, and solution judgment skills. Group sessions for scenario development.

COURSE OUTCOMES & COMPETENCIES:

Students who successfully complete this course will be able to with 86% accuracy:

1. Develop problem solving and critical thinking skills.

- Define critical thinking.
- Increase awareness of your attitudes and values.
- Discuss cultural diversity and its effects on problem solving.
- Describe evidence analysis and research.
- Discuss reasoning and solutions.
- Evaluate solutions and select the most desirable and least desirable solution.

2. Understand the importance of ethical issues, patient's rights, and practice standards for radiography.

- Define ethics.
- Define professional ethics.
- Discuss morals and values.
- Discuss patient confidentiality.
- Discuss each of the A.R.R.T.'s 10 codes of ethics.
- Discuss patient rights.
- Discuss radiography clinical performance standards.

- Discuss quality performance standards.
- Discuss professional performance standards.
- Develop scenarios involving ethics, patient rights, and practice standards.
- Develop solutions to the scenarios.
- Select the most desirable and the least desirable solution.

3. Understand the importance of critical thinking skills when dealing with trauma and emergency situations in medical imaging for various ages and generation specific patients.

- Discuss trauma situations and the need for innovative techniques.
- Discuss and demonstrate methods of equipment manipulation for trauma patients.
- Develop a disaster plan for dealing with mass trauma situations.
- Develop scenarios for bomb threats, school shootings, school bus accidents, tornados, etc.
- Identify common areas of forensic study enhanced with radiologic imaging.
- Identify common procedures performed by forensic radiographers.
- Discuss the importance of producing pre- and postmortem images of comparable quality.
- Discuss the importance of understanding demographic and social effects of aging.
- Discuss the role a radiologic technologist has in identifying common warning signs in the assessment of pediatric and geriatric abuse cases.
- Discuss the importance of radiographic images as forms of evidence in a court of law.

4. Develop problem solving skills for radiographic technical factors and equipment maintenance.

- Solve technical problems and describe the effects of technical factors on image quality.
- Use problem solving skills to identify possible problems with image processing.
- Use problem solving skills to identify possible equipment problems.

5. Understand the various types of quality assurance activities in radiography.

- Describe the differences between quality control (QC) and quality assurance activities.
- Define continuous quality improvement and its uses in a radiology department.
- Describe the daily and monthly/quarterly monitor QC activities.
- Discuss the process of daily/weekly QC on laser imagers.
- State the common QC activities used to measure system speed and data integrity.
- Describe several quality assurance activities used in a digital radiology department.
- Discuss total quality management (QM) and its uses in digital imaging.
- Describe the daily, weekly, and monthly quality control (QC) activities assigned to a radiologic technologist.
- Explain the importance of establishing a repeat analysis database with digital imaging.
- State the common QC activities performed by a service engineer on digital radiographic equipment.
- Become familiar with problem-reporting responsibilities.
- Recognize the QM/QC activities to be performed by the radiation physicist.
- Acknowledge personal responsibilities for correctly marking images, maintaining personal repeat rates, and preventing artifacts.