Course Number: RAD 240
Course Title: Advanced Clinical Experience I
Credits: 3

Hours: 42 clinical days
Pre-requisites: RAD 228, RAD 217
Co-requisites: RAD 224, RAD 232

Catalog description (2019 - 2020 Catalog):
Consists of advanced clinical experience in all aspects of radiologic technology in cooperation with area hospitals. Students acquire clinical experiences and proficiencies sufficient to demonstrate competency in a specified number and variety of diagnostic radiographic procedures.

Required texts/other materials:
Title: Textbook of Radiographic Positioning and Related Anatomy
Author: K. Bontrager
Publisher: Elsevier Mosby
Edition: Ninth

Revision date/No Changes: Spring 2020
Course Coordinator: Sandra L. Kerr, 609-570-3337, e-mail: kerrsmccc.edu
Course Competencies/Goals:
Upon completion of this course the student will be able to:
1. Develop the technical competence to perform all types of diagnostic imaging procedures on a variety of patient types using a variety of imaging equipment, technique formulations, and processing modes with specific focus on cranium fluoroscopic, operating suite, and portable radiographic examinations; correlate to computed tomography.
2. Demonstrate prudent judgment in administering ionizing radiation to produce diagnostic images.
3. Focus on providing optimum patient care in a society that is becoming increasingly diverse and experiencing generational, cultural and ethnic shifts.
4. Expand the ability to work with others in a team relationship.
5. Enhance the understanding of the intricacies associated with providing direct patient care in today’s health care setting as a student and radiographer.
6. Acquire expertise in trauma, pediatric and geriatric radiographic procedures.

Course-specific Institutional Learning Goals (ILGs)/General Education Goals.

**Institutional Learning Goal 1. Written and Oral Communication in English.**
Students will communicate effectively in both speech and writing.

**Institutional Learning Goal 2. Mathematics.** Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.

**Institutional Learning Goal 3. Science.** Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.

**Institutional Learning Goal 4. Technology.** Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

**Institutional Learning Goal 5. Social Science.** Students will use social science theories and concepts to analyze human behavior and social and political institutions and to act as responsible citizens.

**Institutional Learning Goal 6. Humanities.** Students will analyze works in the fields of art, music, or theater; literature; philosophy and/or religious studies; and/or will gain competence in the use of a foreign language.

**Institutional Learning Goal 7. History.** Students will understand historical events and movements in World, Western, non-Western or American societies and assess their subsequent significance.

**Institutional Learning Goal 8. Diversity and Global Perspective:** Students will understand the importance of a global perspective and culturally diverse peoples

**Institutional Learning Goal 9. Ethical Reasoning and Action.** Students will understand ethical frameworks, issues and situations.

**Institutional Learning Goal 10. Information Literacy:** Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.

**Institutional Learning Goal 11. Critical Thinking:** Students will use critical thinking skills understand, analyze, or apply information or solve problems.
Upon completion of the 45 day clinical experience, the student will be able to:

- Exercise the priorities required in daily clinical practice. (CG 5, ILG 11)
- Execute medical imaging procedures under the appropriate level of supervision. (CG 5)
- Adhere to team practice concepts that focus on organizational theories, roles of team members and conflict resolution. (CG 4)
- Adapt to changes and varying clinical situations. (CG 1, 6, ILG 11)
- Provide patient-centered clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture. (CG 3, ILG 8)
- Integrate the use of appropriate and effective written, oral and nonverbal communication with patients, the public and members of the health care team in the clinical setting. (CG 1, ILG 1)
- Integrate appropriate personal and professional values into clinical practice. (CG 5, ILG 9)
- Recognize the influence of professional values on patient care. (CG 5, ILG 9)
- Provide desired psychosocial support to the patient and family. (CG 5, ILG 5)
- Demonstrate competent assessment skills through effective management of the patient’s physical and mental status. (CG 1, ILG 1)
- Respond appropriately to medical emergencies. (CG 1, 6, ILG 11)
- Adapt procedures to meet age-specific, disease-specific and cultural needs of patients. (CG 1, ILG 9)
- Assess the patient and record clinical history. (CG 1, ILG 1)
- Use appropriate charting methods. (CG 1, ILG 1)
- Apply standard and transmission-based precautions. (CG 1)
- Apply the appropriate medical asepsis and sterile technique. (CG 1)
- Demonstrate competency in the principles of radiation protection standards. (CG 2)
- Report equipment malfunctions. (CG 1)
- Examine procedure orders for accuracy and make corrective actions when applicable. (CG 1)
- Demonstrate safe, ethical and legal practices. (CG 5, ILG 9)
- Integrate the radiographer’s practice standards into clinical practice setting. (CG 5, ILG 9)
- Maintain patient confidentiality standards and meet HIPAA requirements. (CG 1, ILG 9)
- Demonstrate the principles of transferring, positioning and immobilizing patients. (CG 1)
- Differentiate between emergency and non-emergency procedures. (CG 1)
- Adhere to national, institutional and departmental standards, policies and procedures regarding care of patients, providing radiologic procedures and reducing medical errors. (CG 5)
- Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible. (CG 2)
- Critique images for appropriate anatomy, image quality and patient identification. (CG 1, ILG 4, 11)
- Determine corrective measures to improve inadequate images. (CG 1, ILG 4, 11)
Evaluation:

There will be two (2) Clinical Progress Evaluations – one at midterm and one at the end of the Spring term – which will cover the student’s overall technical and professional development. Students will be evaluated weekly by the staff they are assigned to which becomes the basis of the Clinical Progress Evaluations.

Periodic image presentations will be made by students that will demonstrate their ability to evaluate the quality of finished radiographs with respect to technique, positioning and other criteria (patient identification, marker placement, etc.). Special emphasis will be placed on evaluating alternative to conventional radiographic positioning and the application of pathology in formulating exposure techniques.

Students are required to satisfactorily complete initial clinical competency testing (CCEs) in six (6) radiographic examinations. Special consideration should be given to completion of remaining cranium, fluoroscopic, portable and operating room procedures in order to satisfy this requirement. A total of three elective competency examinations and three (3) continual competency examinations are required to test the proficiency of the student with respect to procedures he or she has been deemed competent to perform at the initial level. A total of 12 CCEs must be completed by the last scheduled clinical education session. Refer to the Clinical Education Student Handbook for additional details.

Two (2) radiographic procedures identified in the Student Clinical Education Handbook as electives are to be successfully performed by students. All electives must be performed on patients.

Observe and describe computed tomography (CT) or interventional radiology procedures at an affiliate hospital. This rotational assignment will be a minimum of one week; students will select one of the two imaging modalities to observe.

Evaluation: (continued)

A grade of "C+" (77%) or higher must be achieved in the course to progress to RAD 242. The following grading policy will be utilized:

Clinical grade is computed as follows:
Competency Evaluations 30%
Clinical Evaluations 35%
Image Evaluation 25%
CT or IR Evaluation 10%

Academic Integrity:
Mercer County Community College is committed to Academic Integrity -- the honest, fair and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work.

Academic Integrity is violated whenever a student:
A. Uses or obtains unauthorized assistance in any academic work.
B. Gives fraudulent assistance to another student.
C. Knowingly represents the work of others as his/her own, or represents previously completed academic work as current.
D. Fabricates data in support of an academic assignment.
E. Inappropriately or unethically uses technological means to gain academic advantage.

For any academic integrity violation, the faculty member will determine the penalty and shall notify the chairperson of the Academic Integrity Committee of the violation and the penalty imposed. Students should refer to the MCCC Student Calendar/Handbook for the complete policy and OMB210 http://www.mccc.edu/academic_policies_integrity.shtml.

Accessibility:
Mercer County Community College is committed to ensuring the full participation of all students in its programs. If you have a documented differing ability or think that you may have a differing ability that is protected under the ADA or Section 504 of the Rehabilitation Act, please contact Arlene Stinson in LB216 (stinsona@mccc.edu) for information regarding support services.

Clinical Assignment Schedule:
During the (14) week course, students will report to the assigned clinical facility on Mondays, Wednesdays and Fridays prepared to begin clinical education at 8:00 A.M. until 4:00 P.M. unless otherwise notified.

*Note: Students who demonstrate competency in any procedure may perform that procedure under indirect supervision. This means that the licensed radiographer need not be present in the radiographic room during the procedure, but must be adjacent to the room and immediately available should the student require assistance.

Students who produce unacceptable radiographs must repeat those radiographs under direct supervision regardless of the student's level of competency. Failure to comply with this rule is subject to disciplinary action.

Students will participate in two observations at Princeton Radiology Associates, P.A. during radiologist interpretation. The purpose of the observation is to learn the role of the radiographer as it relates to radiologist interpretation of images. The focus of the observation is radiographic quality, pathology identification and application of other imaging modalities.

One observation day in radiation oncology will be scheduled as an elective rotation. Students are required to wear their dosimeter and clinical education uniform. The purpose of the observation is to apply the knowledge of pathology to the treatment of specific diseases. Make-up sessions are not permitted for any observation session. Students must call the designated instructor and Mrs. Kerr when an absence is anticipated. Details of the observations and evaluation form will be distributed by the course instructor. Students who elect to participate in the radiation oncology rotation, must submit the evaluation form by the specified date. If a student misses a scheduled session, it will not be rescheduled and will be recorded as a clinical absence.

Clinical Education Policies:
The student should refer to the Student Clinical Education Handbook for the pertinent policies regarding attendance, punctuality, CCEs, etc. Please note that cellular phones are not to be used in any clinical education facility as these can interfere with unshielded medical devices such as cardiac pacemakers.
January

February

March

April

May

March 9: Mid-Term Evaluation Due
March 16 - 20: Spring Break
May 4: End-Term Evaluation Due
May 6 - 11: Final Exams