

Montgomery County Community College
 RAD 224
 Clinical Education V
 4-0-20

COURSE DESCRIPTION:

As the last of the clinical education series, students will be completing their clinical competency examinations and will have the opportunity to rotate to various specialty areas in the radiology department. In addition, program officials and/or designees will be completing terminal competency examinations with each student to assure program competency. Terminal competency evaluations must be successfully completed by each student in order to be eligible for graduation and professional practice. This course is subject to a course fee. Refer to <http://mc3.edu/adm-fin-aid/paying/tuition/course-fees> for current rates.

REQUISITES:*Previous Course Requirements*

- RAD 221 Radiographic Procedures III
- RAD 214 Clinical Education IV
- RAD 103 Radiation Protection and Biology

Previous or Concurrent Course Requirements

- RAD 230 Radiographic Pathology
- RAD 251 Imaging Professionals and Professional Readiness

LEARNING OUTCOMES Upon successful completion of this course, the student will be able to:	LEARNING ACTIVITIES	EVALUATION METHODS
1. Evaluate procedure orders for accuracy and make corrective actions where applicable.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics
2. Assess the radiographic image at a level expected of a final semester student.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics

LEARNING OUTCOMES	LEARNING ACTIVITIES	EVALUATION METHODS
3. Demonstrate proficiency and independence in proper patient care skills, interpersonal skills and use of time.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics
4. Apply the principles of total quality management.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics
5. Recognize life threatening ECG tracing.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics
6. Integrate the radiographers practice standards into clinical setting.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics
7. Recognize and report equipment malfunctions.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics
8. Complete required terminal clinical competencies.	Observation Demonstration and Practice Computer Technology Critical Thinking Activities Small Group Discussion Simulations	Clinical Evaluations Bi Weekly Evaluations Discussion Questions Critical Thinking Assignments Image Evaluation Rubrics

At the conclusion of each semester/session, assessment of the learning outcomes will be completed by course faculty using the listed evaluation method(s). Aggregated

results will be submitted to the Associate Vice President of Academic Affairs. The benchmark for each learning outcome is that *70% of students will meet or exceed outcome criteria.*

SEQUENCE OF TOPICS:

According to the American Registry of Radiologic Technologists (ARRT), students must demonstrate competency in all 36 mandatory procedures. Procedures should be performed on patients whenever possible, but up to eight mandatory procedures may be simulated if demonstration on patients is not feasible. Students must also demonstrate competence in 15 of the 34 *elective procedures. Elective procedures should be performed on patients whenever possible, but electives may be simulated if demonstration on patients is not feasible.

Based on the topics presented in RAD 111,121 and 221, Students will be required to achieve a minimum of 14 competencies this semester. Any competencies from the previous semesters that are required for the total may also be attempted. For Clinical Education V, students will be required to complete the mandatory competencies from the first 4 semesters in Clinical Education and Procedures. Students will also be responsible for completing a total of 4 Random Re-Comps at the direction of the clinical instructor or clinical coordinator. Students rotating through special areas will be evaluated on their patient care skills and affective behavior during those rotations. A maximum of 4 weeks may be spent in a specials area during this semester.

The list of mandatory and elective* competencies are as follows and should be used as the guideline for this semester objective completion:

1. Facial Bones*
2. Nasal Bones*
3. Paranasal Sinuses*
4. Skull*
5. Temporomandibular Joints*
6. Orbits*
7. Mandible*
8. Soft Tissue Neck*
9. Esophagus Study*
10. Upper GI Series*
11. Small Bowel Series*
12. Contrast Enema*
13. Hysterosalpingography*
14. Myelography*
15. ERCP*
16. Arthrography*
17. Cystography/Cystourethrography*
18. C-arm Procedure requiring manipulation around a sterile field
19. C-arm Procedure to obtain more than one projection
20. Chest, Routine
21. Pediatric Chest

22. AP Wheelchair or Stretcher Chest
23. Lateral Decubitus Chest*
24. Sternum*
25. SC Joints*
26. Ribs
27. Finger or Thumb
28. Hand
29. Wrist
30. Forearm
31. Elbow
32. Humerus
33. Shoulder
34. Trauma Extremity
35. Scapula*
36. Clavicle
37. Acromioclavicular Joints*
38. Trauma Shoulder
39. Abdomen Supine
40. Abdomen Upright
41. Abdomen (Decubitus)
42. Intravenous Urography*
43. Portable Chest
44. Portable Abdomen
45. Portable Extremity
46. Toes*
47. Foot
48. Ankle
49. Calcaneus*
50. Tibia/Fibula
51. Knee
52. Patella
53. Femur
54. Pelvis
55. Hip
56. Trauma Hip (cross table lateral)
57. Cervical Vertebrae
58. Cross Table Lateral Spine
59. Thoracic Vertebrae
60. Lumbar Vertebrae
61. Sacrum/Coccyx*
62. Scoliosis Survey*
63. Pediatric Upper or Lower Extremity*
64. Sacroiliac Joints*
65. Pediatric Abdomen*
66. Pediatric Mobile Study*
67. Geriatric Chest Routine

- 68. Geriatric Upper or Lower Extremity
- 69. Geriatric Hip or Spine

LEARNING MATERIALS:

Text:

Long, Curtis, and Smith, (2023). *Merrill's Pocket Guide to Radiography* (15th ed.). St. Louis, MO: Mosby Publishing Inc.

Other learning materials may be required and made available directly to the student and/or via the College's Libraries and/or course management system.

COURSE APPROVAL:

Prepared by: Debra J. Poelhuis, M.S., R.T	Date: 5/2004
Revised by: Debra Poelhuis, M.S., R.T.	Date: 1/2009
VPAA/Provost Compliance Verification: Dr. John C. Flynn, Jr.	Date: 9/11/2009
Revised by: Debra Poelhuis, R.T., M.S.	Date: 10/26/2012
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 10/26/2012
Revised by: Cheryl L. DiLanzo, M.S., R.T.	Date: 10/28/2016
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 11/5/2016
Revised by: Debbie Dalrymple and Cheryl L. DiLanzo, M.S., R.T	Date: 1/9/2018
VPAA/Provost or designee Compliance Verification: Victoria L. Bastecki-Perez, Ed.D.	Date: 1/9/2018
Revised by: Dana Smith, M.S., R.T.	Date: 1/27/2023
VPAA or designee Compliance Verification:	Date: 1/27/2023



This course is consistent with Montgomery County Community College's mission. It was developed, approved and will be delivered in full compliance with the policies and procedures established by the College.