

Rad. Anatomy & Procedures IV

RADS - 2020 301

Course Student Learning Outcomes

- Mobile Radiography: describe the principles of mobile radiography to include its purpose and some common locations for its use, compare mobile x-ray machines to department machines to include milliamperage per second (mAs), kilovoltage peak (kVp) and kilowatt (kW) capabilities, describe basic details of battery-operated and capacitor-discharge mobile machines, identify technical considerations when performing mobile radiography with the use of a grid, describe how the anode-heel effect may impact mobile radiography and how to use it to obtain the optimum image, list typical source to image distances (SID) used for mobile radiography and how it impacts exposure factors, record techniques and utilize technique charts, discuss radiation safety practices necessary during mobile radiography, describe instances when isolation techniques are required and how to correctly perform mobile radiography in isolation situations, list initial procedures that must be followed prior to performing mobile examinations, discuss details that must be considered while performing the mobile examination, describe patient considerations.
- Trauma Radiography: describe common causes of trauma, discuss preliminary considerations of trauma radiography to include specialized equipment, exposure factors and positioning of the patient, explain the role of the radiographer during trauma procedures, discuss radiation protection practices during trauma radiography, explain issues relating to patient care during trauma radiography, list and describe the "Best Practices" during trauma radiography, regarding radiographic procedures in trauma, describe details, describe how to perform trauma procedures, recall the three causes of damage to the brain, list common trauma and types of injuries that may be caused, describe trauma fixation devices, discuss how to reverse or modify a position, describe problems encountered when performing horizontal-beam projections and how to overcome those problems, given a

hypothetical trauma situation, describe how to perform the procedures and list all considerations that must be given.

- Surgical Radiography: describe sterile team members and their roles in surgical radiography, describe non-sterile team members and their roles in surgical radiography, discuss how to maintain a sterile field, recall what type of communication is necessary in surgery, describe how to properly cover the IR and how to dispose of it after the exam, explain how to properly drape a C-arm, list principles of aseptic technique, describe typical surgical equipment, recall how to properly clean surgical equipment, list types of fluoroscopic procedures, list types of mobile radiographic procedures, describe details of performing the fluoroscopic surgical procedures, describe details of performing the mobile surgical procedures, list the steps required in the surgical radiography procedure, describe considerations that must be given to technical factors used in surgical radiography.
- Advanced Procedures: describe all pertinent anatomy being studied, explain the patient preparation necessary for each advanced study, discuss any special equipment and supplies necessary for each of the studies covered, review the steps of the procedure for each exam, list the purpose of each study and what anatomy or function is demonstrated, indicate the contrast media used, the usual dosage and the route of administration, identify the study, structure visualized and function demonstrated on radiographs, list the positioning unique to each exam covered, identify the projection and/or position for each exam.
- Circulatory System: discuss the details of the heart circulation and anatomy, list and identify arteries that flow to the brain, list and identify major abdominal arteries, list and identify lower extremity arteries, list and identify upper extremity arteries, describe the difference between arteries and veins, discuss the difference between deep veins, superficial veins and venous sinuses, list and identify veins of the neck and head, list and identify veins in the upper limbs, list and identify veins of the thorax, list and identify veins of the abdomen and pelvis, describe and identify the hepatic portal system, list and identify veins of the lower limbs, define the purpose of the lymphatic system, describe details of all the following lymphatic anatomy.

Engagement Plan

Example language:

- I will respond to email within 48 hours. I will offer feedback on major assignments within 7 days. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.
- In this course I will be posting interactive announcements which will offer specific opportunities for class questions and extra credit every other week.
- Additionally, I will be participating in the discussion forums with you to share my perspective within the discipline and to offer some nuances of interpretation that may not be present in your textbook.
- Lastly, we'll be holding small group Q & A sessions, where we can learn from our peers (and faculty) on some of the more difficult units within the course.

Brief Description of Assignments/Exams

1. Complete directed reading assignment (must be typed using 12-point font) on "Mobile Chest Radiography, Improving Image Quality". This is an individual assignment and should not be done in groups.
2. Complete an image critique of chest radiographs provided online using an image analysis assessment tool.
3. Complete workbook 15th edition pages 512-518 and post a discussion telling us about a challenging exam or challenges you have had with portable x-rays
4. Complete directed reading assignment for C-spine injuries
5. Complete workbook Merrill's 15th edition pages 405-410 and post a discussion telling us about one or two trauma exams you have had to perform. Then respond to one fellow classmate's post.
6. In at least 300 words, tell about a surgery case you performed. Then read at least three posts from another student and respond in at least 100 words to one of them. See grading rubric for criteria on your 300 word post.
7. Complete Merrill's workbook 15th edition pages 519-523.
8. Research an advanced procedure done at their facility (i.e. arthrogram, angiogram, endoscopy, or interventional exam, do not use UGI, BE or Barium Sallow) and post a video that describes and/or demonstrates the procedure. Then look at 3 other student's post and respond to one of them.

9. After reading and looking at the risk factors on the American Cancer Society's web page, tell us about two factors that stood out to you and why.
10. Workbook: Pages 15th edition pages 411-418 none for Mammo
11. Complete workbook 15th edition pages 575- 584.

Late Assignment Policy Timely submission of assignments is essential for success in this course. The following penalties will apply to late submissions:

1. 1 day late: 25% deduction
2. 2 days late: 50% deduction
3. 3 days late: 75% deduction
4. More than 3 days late: Not accepted

Assignments must be submitted through the designated platform by the stated deadline. If you anticipate a delay due to extenuating circumstances, please contact the instructor before the due date to discuss possible accommodations. Exceptions may be granted at the instructor's discretion with appropriate documentation

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	REVIEW -Trauma Radiography- not for a grade	Assignment	0
	Review Mobile - not for a grade	Assignment	0
	REVIEW- Advanced Procedures- not for a grade	Assignment	0
	Advanced Procedures Review	Quiz	0

Due Date	Assignment Name	Assignment Type	Points
	Arthrogram Radiograph Review	Quiz	0
	Arthrogram Radiograph Review	Quiz	0
	Circulatory Diagram Activity	Quiz	0
	Circulatory Diagram Activity- not for a grade	Quiz	0
	Circulatory System Review Two	Quiz	0
	Circulatory System Review Two- not for a grade	Quiz	0
	Circulatory System Review- not for a grade	Quiz	0
	Foreign Body Exercise- not for grade	Quiz	0
	Mobile Radiography Review	Quiz	0
	Mobile Review Activity- not for grade	Quiz	0
	REVIEW- Circulatory System - not for a grade	Assignment	0
	REVIEW-Surgical - not for a grade	Assignment	0

Due Date	Assignment Name	Assignment Type	Points
	Surgical Fixation Examples	Quiz	0
	Surgical Radiographs Review	Quiz	0
	Surgical Review Assignment	Quiz	0
	Trauma Exercise- not for grade	Quiz	0
	Trauma Radiography Review	Quiz	0
	Trauma Review- not for grade	Quiz	0
9/12/25	Mobile Chest Critique Activity	Quiz	10
9/12/25	Mobile Directed Reading Assignment	Assignment	27
9/12/25	Mobile Radiography Discussion	Discussion	10
9/12/25	Mobile Radiography EXAM	Quiz	31
10/10/25	Trauma Directed Reading Assignment	Quiz	29
10/10/25	Trauma Radiography Discussion	Discussion	10
10/10/25	Trauma Radiography EXAM	Quiz	35
10/31/25	Surgical Radiography Discussion	Discussion	20

Due Date	Assignment Name	Assignment Type	Points
10/31/25	Surgical Radiography EXAM	Quiz	30
11/21/25	Advanced Procedure EXAM	Quiz	29
11/21/25	Advanced Procedures Discussion	Discussion	10
11/21/25	Breast Cancer Risk Factors Discussion	Discussion	10
12/5/25	Circulatory System EXAM	Quiz	60

Grading Scale

95-100 A 75-77 C

90-94 A- 71-74 C-

87-89 B+ 67-70 D+

83-86 B 64-66 D

80-82 B- Below 64 E

78-79 C+

How to Navigate to Canvas

Online Tutoring

Students at SLCC have access to online tutoring through Canvas. From your Canvas course click Online Tutoring in the course navigation and follow the steps to set up an appointment. If this is your first time using the Online Tutoring we recommend you click "Take a Tour" to familiarize yourself with the service.

Note that students only receive 480 minutes of tutoring time each semester. After that we encourage you to use the resources found through this link:

<https://www.slcc.edu/tutoring/index.aspx>

If you have any additional questions reach out to elarningsupport@slcc.edu.

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)