

Updated 07/18/2023



WACO, TEXAS

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**COURSE SYLLABUS  
AND  
INSTRUCTOR PLAN**

**Basic Radiographic Procedures LAB**

**RADRL 1311\_004**

**Stacy Reeves, BSRS, RT(R)**

**NOTE: This is a 16-week course.**

**NOTE: This is a Face-to-Face course.**

## BASIC RADIOGRAPHIC PROCEDURES LAB

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### **Course Description:**

Introduces radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy and related pathology. This class is a two-way interactive video class in format.

### **Prerequisites and/or Corequisites:**

(Concurrent enrollment with RADR 1311)

### **Course Notes and Instructor Recommendations:**

*All cell phones, pagers, or other electronic devices must be turned on silence during class.*

You may check your messages during breaks or between classes. *Laptop computers may be used to facilitate note-taking or to view classroom visuals that are posted on BrightSpace but must be turned off or put in sleep mode during tests.* No other use of the laptop will be tolerated during class. If at any time during class you create a distraction to the Instructor or your classmates, you will be asked to leave the class.

### **Instructor Information:**

Instructor Name: Stacy Reeves

MCC E-mail: sreeves@mclennan.edu

Office Phone Number: 254-299-8526

Office Location: CSC C-114

Office/Teacher Conference Hours: By Appointment only (M-F 8-5)

Other Instruction Information: Available at other times with appointment

### **Required Text & Materials:**

Title: Textbook of Radiographic Positioning and Related Anatomy

Author: Lampignano, John P., Kendrick, Leslie E.

Edition: 10<sup>th</sup>

Publisher: Mosby-Elsevier

ISBN: 978-0-323-95367-2

Title: Textbook of Radiographic Positioning and Related Anatomy Workbook (2021)

Author: Lampignano, John P., Kendrick, Leslie E.

Edition: 10<sup>th</sup>

Publisher: Mosby-Elsevier

ISBN: 978-0-323-69423-0

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

**Methods of Teaching and Learning:**

Lecture, discussion groups, group projects, lab exercises, portfolio, written reports/papers, exams, quizzes, simulations, workbook exercises power point presentations.

**Course Objectives and/or Competencies:**

The student will define radiographic positioning terms; manipulate equipment properly; position and align anatomical structure and equipment; and evaluate images of proper demonstration of anatomy and pathology. Students will demonstrate an understanding of procedures related to radiography of the course outline.

After completion of all lectures, presentations, homework and reading assignments the student will be able to:

1. Relate and demonstrate positioning nomenclature.
2. Perform in order all steps for positioning of various parts of the body.
3. On given radiographs, utilize proper evaluation criteria to determine if a film is acceptable or unacceptable. If unacceptable, give major reason why it is not.
4. Identify structures on radiographs as shown in all positions.
5. Provide proper radiation protection for all projection taken.
6. State the most common film size and proper placement of film for all exams.
7. Demonstrate proper central ray location for all exams.
8. Employ proper breathing technique on all positions and exams.,
9. Choose proper degree of angulation and direction of central ray for various exams.

**UNIT 1 Learning Objectives**

Introduction to Radiographic Principles, Positioning, Procedures and Terminology

At the completion of this unit, the student should be able to:

1. List and discuss patient care consideration relevant to positioning.
2. List the three primary exposure factors.
3. List specific methods of reducing patient radiation exposure.
4. Explain the 10-day rule.
5. List the three primary principles of radiation protection.
6. Define and demonstrate the anatomic position.
7. Define terms related to body planes.
8. Given diagrams, identify body planes.
9. Given topographic landmarks, list the corresponding vertebrae.

10. List and describe the characteristics of each of the four major body types.
11. Given diagrams, identify the body type illustrated.
12. Define terms related to general positioning.
13. Define and demonstrate given terms related to relative body position, and body movement.
14. List the three general principles of positioning.
15. List and discuss the six primary elements in radiographic positioning.

### **UNIT 2 Learning Objectives**

#### **Chest and Upper Airway**

At the completion of this unit, the student should be able to:

1. List and describe the anatomy of the chest and upper airway.
2. Given drawings and radiographs, locate anatomic structures and landmarks.
3. Explain the rationale for each projection.
4. Explain the patient preparation required for each examination.
5. Describe the positioning used to visualize anatomic structures of the chest and upper airway.
6. List or identify the central ray location and the extent of the field necessary for each projection.
7. Explain the protective measures that should be taken for each examination.
8. Recommend the technical factors for producing an acceptable radiograph for each projection.
9. State the patient instructions for each projection.
10. Given radiographs, evaluate positioning and technical factors.
11. Describe modifications of procedures for atypical or impaired patients to better demonstrate the anatomic area of interest. **F02, C05**

### **UNIT 3 Learning Objectives**

#### **Abdomen**

At the completion of this unit, the student should be able to:

1. List and describe the soft tissue and bony anatomy of the abdomen.
2. Identify the quadrant in which abdominal organs are located.
3. Given drawings and radiographs, locate anatomic structures and landmarks.
4. Explain the rationale for each projection.
5. Explain the patient preparation required for each examination.
6. Describe the positioning used to visualize anatomic structures of the abdomen.

7. List or identify the central ray location and the extent of the field necessary for each projection.
8. Differentiate between the positioning and centering factors for an acute abdomen series and routine supine and upright abdomen.
9. Explain the protective measures that should be taken for each examination.
10. Recommend the technical factors for producing an acceptable radiograph for each projection.
11. State the patient instructions for each projection.
12. Given radiographs, evaluate positioning and technical factors.
13. Describe modifications of procedures for atypical or impaired patients to better demonstrate the anatomic area of interest.

#### **UNIT 4 Learning Objectives**

##### **Upper Limb and Shoulder Girdle**

At the completion of this unit, the student should be able to:

1. List and describe the anatomy of the upper limb and shoulder girdle.
2. Given drawings and radiographs, locate anatomic structures and landmarks.
3. Explain the rationale for each projection.
4. Explain the patient preparation required for each examination.
5. Describe the positioning used to visualize anatomic structures in the upper limb and shoulder girdle.
6. List or identify the central ray location and the extent of the field necessary for each projection.
7. Explain the protective measures that should be taken for each examination.
8. Recommend the technical factors for producing an acceptable radiograph for each projection.
9. State the patient instructions for each projection.
10. Given radiographs, evaluate positioning and technical factors.
11. Describe modifications of procedures for atypical or impaired patients to better demonstrate the anatomic area of interest.

#### **UNIT 5 Learning Objectives**

##### **Lower Limb and Pelvis**

At the completion of this unit, the student should be able to:

1. List and describe the bony anatomy of the lower limb and pelvis.
2. Given drawings and radiographs, locate anatomic structures and landmarks.
3. Explain the rationale for each projection.
4. Explain the patient preparation required for each examination.

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5. Describe the positioning used to visualize anatomic structures in the lower limb and pelvis.
6. List or identify the central ray location and the extent of the field necessary for each projection.
7. Explain the protective measures that should be taken for each projection.
8. Recommend the technical factors for producing an acceptable radiograph for each projection.
9. State the patient instructions for each projection.
10. Given radiographs, evaluate positioning and technical factors for radiographs of the lower limb and pelvis.

### **Course Attendance/Participation Guidelines:**

If a student is not in attendance in accordance with the policies/guidelines of the class as outlined in the course syllabus as of the course census date, faculty are required to drop students from their class roster prior to certifying the respective class roster. A student's financial aid will be re-evaluated accordingly and the student will only receive funding for those courses attended as of the course census date.

Lab is a time for students to enhance classroom positioning procedures in a hands-on environment. Due to time constraints, it is imperative that students make every effort to attend their assigned lab time. If a student must be absent from lab, a makeup time must be scheduled within one week of the absence, otherwise, a 10-point deduction will be deducted from the final lab grade. The student may contact their lab instructor to reschedule, or upon obtaining permission from another lab instructor to attend another scheduled lab session that is covering the same basic content. This must be taken care of within one week of the absence. Lab make-up times are at the discretion of the lab instructor.

Points will still be deducted even though a makeup time has been arranged. Failing to make up a lab within the allotted time or at all will result in a 10-point deduction from their final lab grade.

Absence from lab will affect the student's grade in the following manner.

- 2-point deduction from the final lab grade for each late arrival to lab
- 5-point deduction for each absence that is rescheduled.
- 10-point deduction for each absence that is not made up or rescheduled.

### **Course Outline or Schedule:**

- A. Introduction to Radiographic Principles, Positioning, Procedures and Terminology.
- B. Chest and Upper Airway
- C. Abdomen

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D. Upper Limb and Shoulder Girdle

E. Lower Limb and Pelvis

Dates	Topic	Material to Cover* - (Bontrager Pocket Guide and TextBook)	
Week 1	Radiology Equipment	Lab Orientation Explanation of Lab Evaluation Exam Sheets	
	General Body Positions	anterior v. posterior, lateral, supine vs. prone tube angle cephalic v. caudal upright wall unit v. table patient position obl. Table vs. wall unit Control Panel	
Week 2	Chest	PA Upright & Lateral Upright AP Lordotic AP Supine (Stretcher Chest) AP Upright (Wheelchair Chest)	
Week 3	Chest & Upper Airway	Lateral Decubitus Oblique Chest AP Soft Tissue Neck Lateral Soft Tissue Neck	
Week 4	Abdomen	<i>AP Supine "KUB" Abdomen, Upright, Decubitis</i>	
Week 5	Lab Exam	Chest 2 V Abdomen 2 V	
Week 6	Upper Limb	Finger/Thumb Hand - PA, Lateral & Oblique Wrist - PA, Oblique, Lateral Wrist - PA Ulnar Deviation Carpal Canal	
Week 7	Upper Limb	Forearm - AP & Lateral Elbow - AP & Lateral Elbow - External & Internal Oblique Elbow - AP Partial Flexion	

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		<b>Axial Elbow (trauma-Coyle)</b>	
<b>Week 8</b>	<b>Humerus &amp; Shoulder</b>	<b>Humerus - AP &amp; Lateral (non-trauma)</b>	
		<b>Humerus - AP Neutral (trauma)</b>	
		<b>Transthoracic Lateral Humerus (trauma)</b>	
		<b>Shoulder - AP Internal &amp; External Rotation</b>	
		<b>Scapula - AP &amp; Lateral</b>	
<b>Week 9</b>	<b>Humerus &amp; Shoulder</b>	<b>Scapy-Y Trauma</b>	
		<b>Shoulder - Inferosuperior Axial (Lawrence)</b>	
		<b>Glenoid Fossa (Grashey)</b>	
		<b>Clavicle - AP</b>	
		<b>Clavicle - AP Angle &amp; PA Angle</b>	
		<b>Acromioclavicular Joints - (with/without weights)</b>	
<b>Week 10</b>	<b>Lower Limb</b>	<b>Toes - AP, Oblique &amp; Lateral</b>	
		<b>Foot - AP, AP Axial, Medial</b>	
		<b>Foot - Lateral (mediolateral &amp; lateromedial)</b>	
		<b>Sesamoids Tangential</b>	
		<b>Weight Bearing AP &amp; Lateral</b>	
		<b>Calcaneus - Axial &amp; Lateral</b>	
<b>Week 11</b>	<b>Lower Limb</b>	<b>Ankle - AP, AP Mortise, Oblique &amp; Lateral</b>	
		<b>Ankle - AP Stress Studies</b>	
		<b>Tib/Fib - AP, Lateral</b>	
		<b>Distal Femur - AP, Lateral</b>	
<b>Week 12</b>	<b>Knee</b>	<b>Knee, AP, Lateral, Obliques (medial &amp; lateral)</b>	
		<b>Camp Coventry, Homblad, Modified Homblad</b>	
		<b>Patella-PA, Lateral, Settegast</b>	
		<b>Patella-Merchant, Inferior superior</b>	
<b>Week 13</b>	<b>Femur &amp; Pelvis</b>	<b>Pelvis - AP, Frog Lateral (Modified Cleaves)</b>	
		<b>Pelvis - Inlet &amp; Outlet</b>	
		<b>Judet Acetabulum</b>	
		<b>Unilateral Hip &amp; Frog Lateral (non-trauma)</b>	
		<b>Hip - Cross Table Lateral</b>	



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		Hip-Clements-Nakayama *according to ARRT guidelines	
Week 14		Thanksgiving week no lab	
Week 15	Final Lab Challenge	Lab Challenge over any basic procedure from the semester	

### **Course Grading Information:**

Your grade in this course will be based upon your performance in the following areas:

<u>TASK</u>	<u>PERCENTAGE OF COURSE GRADE</u>
Lab Challenge	100%

**The grade for this class is a portion of RADR 1311 and is weighted at 30% of the grades for that class. TOTAL 100% = COURSE GRADE**

The course grade will be applied to the following scale:

90% - 100%	A	
80% - 89%	B	
75% - 79%	C	<b>REMEMBER:</b> This is an RT course --
60% - 74%	D	C is the minimum acceptable grade
59% or less	F	

Throughout the course, grades will be available in BrightSpace. All grades are automatically rounded up to the nearest whole number.

### **Late Work and Make Up Work Policies:**

*See Course attendance and Participation Guidelines*

### **Student Behavioral Expectations or Conduct Policy:**

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the educational opportunity. Students in this program are adults and are expected to act

appropriately. Behavior that is disrespectful or disruptive will not be tolerated; the student will be asked to leave the class. Each occurrence will be documented and may result in counseling from the instructor and program director. If inappropriate behavior continues, a report will be filed with the Grievance Committee in Student Development.

### **Brightspace Use and Activity**

The instructor of this course intends to utilize Brightspace as both a communication tool as well as its features for announcements, assignments, and assessments. It is the student's responsibility to understand procedures and the importance of accessing Brightspace often, most likely daily, (as well as the MCC issued email), in order to stay on-track with the activities and requirements to complete this course.

### **E-mail correspondence**

**The instructor of this course intends to communicate with students using McLennan Community College email.** Use of other email addresses could cause a breakdown in communication and important information missed. Email messages are to be formulated in a professional fashion with no use of text speaking or symbols. Email correspondence should open with an appropriate salutation/greeting to the person intended and close with an appropriate closing/sign off.

### **[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)**

**(<https://www.mclennan.edu/highlander-guide/policies.html>)**

Click on the link above for the college policies on attendance and absences. Your instructor may have additional guidelines specific to this course.

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## **ACADEMIC RESOURCES/POLICIES**

### **Accommodations/ADA Statement:**

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit [www.mclennan.edu/disability](http://www.mclennan.edu/disability).

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

[disabilities@mclennan.edu](mailto:disabilities@mclennan.edu) 2542998122 Room  
319, Student Services Center

### **Title IX:**

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the acting Title IX Coordinator at [titleix@mclennan.edu](mailto:titleix@mclennan.edu) or by calling, Dr. Claudette Jackson, (Accommodations/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a

confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>. Go to McLennan's Title IX webpage at [www.mclennan.edu/titleix/](http://www.mclennan.edu/titleix/). It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

### **Student Support/Resources:**

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom. You can contact the Academic Support and Tutoring team via Zoom or email ([ast@mclennan.edu](mailto:ast@mclennan.edu)) by going to our website (<https://www.mclennan.edu/academic-support-and-tutoring/>).

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing [crew@mclennan.edu](mailto:crew@mclennan.edu) or a Success Coach by calling (254) 299-8226 or emailing [SuccessCoach@mclennan.edu](mailto:SuccessCoach@mclennan.edu). Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to [https://mclennan.co1.qualtrics.com/jfe/form/SV\\_07byXd7eB8iTqJg](https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg). Both the Completion Center and Paulanne's Pantry are located on the second floor of the Student Services Center (SSC).

### **MCC Foundation Emergency Grant Fund:**

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to

<https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html>

to find out more about the emergency grant. The application can be found at

[https://www.mclennan.edu/foundation/docs/Emergency\\_Grant\\_Application.pdf](https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf).

**MCC Academic Integrity Statement:**

Go to [www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity) for information about academic integrity, dishonesty, and cheating. The unauthorized use of artificial intelligence (AI) for classwork can be a violation of the College's General Conduct Policy. Whether AI is authorized in a course and the parameters in which AI can be used in a course will be outlined by each instructor.

**Minimum System Requirements to Utilize MCC's D2L|Brightspace:**

Go to <https://www.mclennan.edu/center-for-teachingandlearning/FacultyandStaffCommons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

**Minimum Technical Skills:**

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

**Backup Plan for Technology:**

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

**Email Policy:**

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are

expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to [www.mclennan.edu/studentemail](http://www.mclennan.edu/studentemail).

**Instructional Uses of Email:**

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

**Email on Mobile Devices:**

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email [Helpdesk@mclennan.edu](mailto:Helpdesk@mclennan.edu) for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](#)
- [Email Setup for Androids](#)

**Forwarding Emails:**

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support Cheat Sheet](#) or email [helpdesk@mclennan.edu](mailto:helpdesk@mclennan.edu).

**Disclaimer:**

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.