

WACO, TEXAS

AND INSTRUCTOR PLAN

Basic Radiographic Procedures RADR 1311_01

Deborah Quinn BSHS, RT(R)

NOTE: This is a 16-week course.

COVID 19 Notice:

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website on any changes to these guidelines.

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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. Covers positioning of the chest, abdomen, upper and lower extremities, shoulder and pelvic girdles. Includes common procedures utilizing contrast media. Prerequisite: Acceptance into Radiologic Technology.

Semester Hours 3 (3 lec/2 lab)

Prerequisites and/or Corequisites:

(Concurrent enrollment with RADR 1203)

Course Notes and Instructor Recommendations:

All cell phones, pagers, or other electronic devices must be turned off 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 Bright Space, but must be turned off or put in sleep mode during tests. No other use of the lap top 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: Deborah Quinn MCC E-mail: dquinn@mclennan.edu Office Phone Number: 254-299-8305

Office Location: CSC C-117

Office/Teacher Conference Hours: Posted

Other Instruction Information: Available other times by appointment

Required Text & Materials:

Title: Textbook of Radiographic Postitioning and Related Anatomy (2018)

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

Edition: 10th

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: 10th

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Publisher: Mosby-Elsevier ISBN: 978-0-323-69423-0

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

Methods of Teaching and Learning:

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

❖ Students will be required to role-play as a professional radiographer and a patient during lab experiences. This role-play will involve professional physical contact with other students and the instructor while learning various radiographic procedures, blood pressures, pulse, respirations, patient transfer scenarios, and venipuncture.

* Campus Closure Alternative Plan

O In the event campus closes for face-to-face class, this course will be adapted to online activities with the possibility of a few small group meetings in lab if warranted by instructors and allowed by campus administration. Students will be assigned to small groups of less than 8 (including the instructor) when attending in-person meetings.

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 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 an image is acceptable or unacceptable. If unacceptable, give major reason why it is not.
- 4. Identify structures or radiographs as shown in all positions.
- 5. Provide proper radiation protection for all projection taken.
- 6. State the most common IR size and proper placement of IR for all exams.
- 7. Demonstrate proper central ray location for all exams.
- 8. Employ proper breathing technique on all positions and exams.

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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 he anatomic area of interest.

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UNIT 3 Learning Objectives

Abdomen

At the completion of this unit, the student should be ale 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

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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.
- 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.

RADR 1311.21 Basic Procedures

| DATE | CONTENT | Chapter Reading | |
|--------|--|------------------------|------|
| Week1 | Class Intro/Syllabus & Preliminary Steps in Radiography | Bontrager Chapter 1 | 8/23 |
| | Preliminary Steps in Radiography | | 8/25 |
| Week 2 | General Anatomy & Rad. Positioning Terminology | | 8/30 |
| | Exam 1 Chapter 1 WB Chapter 1 Due | | 9/1 |
| Week 3 | Labor Day-Campus closed | | 9/6 |
| | Chest & Upper Airway | Chapter 2 & 3 | 9/8 |
| Week 4 | Chest & Upper Airway | Chapter 2 & 3 | 9/13 |
| | Chest/Abdomen | Chapter 2 & 3 | 9/15 |
| Week 5 | Abdomen | Chapter 3 | 9/20 |
| | Abdomen | Chapter 3 | 9/22 |

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| Week 6 | Exam 2: Chest & Abdomen WB Chapter 2&3 Due | | 9/27 |
|---------|---|---------------------|--------|
| | Upper Limb | Chapter 4 | 9/29 |
| Week 7 | Upper Limb | | 10/4 |
| | Upper Limb | | 10/6 |
| Week 8 | Exam 3: Upper Limb | WB Chapter 4 Due | 10/111 |
| | Proximal Humerus & Shoulder | Chapter 5 | 10/13 |
| Week 9 | Proximal Humerus & Shoulder | | 10/18 |
| | Proximal Humerus & Shoulder | | 10/20 |
| Week 10 | Exam 4: Prox. Humerus & Sh WB Chapter 5 Due | 10/25 | |
| | Lower Limb | Chapter 6 | 10/27 |
| Week 11 | Lower Limb | | 11/1 |
| | Lower Limb | | 11/3 |
| Week 12 | Exam 5: Lower Limb WB Chapter 6 Due | | 11/8 |
| | Proximal Femur & Pelvic Girdle | Chapter 7 | 11/10 |
| Week 13 | Proximal Femur & Pelvic Girdle | | 11/15 |
| | Proximal Femur & Pelvic Girdle | | 11/17 |
| Week 14 | Exam 6: Prox. Femur & Pelvic Girdle WB Chapter 7 Due | | 11/22 |
| | Thanksgiving Wee | 11/24 | |
| Week 15 | Final Exam Review?? | | 11/29 |
| | Final Exam Review | | 12/1 |
| Week 16 | | | 12/6 |

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| Comprehensive Final Exam & Image | TBD | 12/8 |
|----------------------------------|-----|------|
| Evaluation 9:00-12:00 | | |

Instructor has the authority to modify this schedule based on understanding of content with adequate notification to students

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

TASK

PERCENTAGE OF COURSE GRADE

- 1. Homework, quizzes, daily work, workbook 5%

TOTAL 100% = COURSE GRADE

The course grade will be applied to the following scale:

90% - 100% A 80% - 89% B

75% - 79% C **REMEMBER:** 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.

Performance Goal, Expectation, and Requirements

The Radiologic Technology program coursework is designed to provide students with a structured comprehensive curriculum that prepares them for a career as a professional health care provider. It is imperative that students develop and maintain a strong knowledge base of all course material and competencies to be successful.

Therefore, the program has established a performance goal for all coursework and assessments in all RADR courses of an 80% or higher. Students that do not achieve the minimum grade of 80% will be required to complete an activity of remediation assigned by the instructor of the course

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immediately following. The activity requirements will vary as they will be customized according to factors such as the students' needs, the purpose of the assignment, its content, etc., and the instructor will maintain all records of completion. Students that fail to complete the required remediation activities will receive an "Incomplete" ("I") grade for the course, regardless of overall passing grade point average, until all work is submitted. An "Incomplete" ("I") in any course must be resolved prior to the start of the following semester or the resulting grade will convert to an "F" and the student will not pass the course.

Late Work, Attendance, and Make Up Work Policies:

Students whether present or absent, are responsible for all material presented or assigned for the course and will be held accountable for that material in the determination of grades in the course. Late assignments will be given a 10-point deduction on the first day missed and five points every class day thereafter. Absence from 25 percent of scheduled lecture and/or laboratory meetings will be taken as evidence that a student does not intend to complete the course, and the student will be withdrawn from the course with a grade of W.

Testing in this course will consist of an image evaluation given once class begins, doors are locked and before the paper test is handed out. The image evaluations will be graded separately from the paper test and will be recorded in the grade book as a separate test grade. Once the image evaluation is completed, the answer sheets will be retrieved and the paper test will be distributed. This will also include the final exam. There will be a final exam consisting of a image evaluation and a paper test.

Student absence and missed test(s)

Should a student be unable to make it to class on a test day and miss one or both of the tests (image eval /paper test) for that day, the final exam grade for the portion missed will replace the missed grade <u>WHEN</u>, the student notified the instructor <u>PRIOR</u> to test time by email, phone call or text. This option is afforded one time for each portion of the test. Missed image eval for one test will mean the Final Image Eval grade can be substituted. A missed paper portion of a test will mean that the Final Exam paper test grade can be substituted for the missed grade.

For either situation, the student must contact the instructor **PRIOR** to test time to receive this substitution. If the student fails to provide **PRIOR** notification, the grade recorded will be a zero for the portion missed. Make-up quizzes/tests are not allowed. Extra credit work is at the discretion of the instructor but is normally not given. If a student attends class and performs the assigned work, extra credit work will not be necessary.

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Testing Policy

The instructor may test you over any material covered in lecture, power point presentations, assigned reading, or class discussion. Chapter tests are normally given in person on the MCC campus or by computer which will be provided in the classroom setting.

Tests may include concepts/images from previous chapters or tests to ensure that information retention remains high. While the majority of the actual test will be current chapter information, there could be select questions from previously studied content. Attendance is very important to assure that you are well prepared for material that is vital to your success and career.

In the event that tests are given in an on-line setting, a set time limit will be in place for completion and Respondus LockDown Browser may be used for test integrity. If a student misses a major test, and has notified the instructor **PRIOR** to the test time, the student will be given a copy of the test for study purposes and their final grade will be substituted for the missed test grade. **This option is afforded once**.

Should a student experience any type of technology issues, the student must test in the MCC testing center for any subsequent tests. Students are responsible to ensure that the technology available to them off campus is adequate for online testing using Respondus LockDown Browser. Waiting until the last minute to test only to discover a problem with the technology available to them could result in missing or failing to take the test in the allotted time frame. Exceptions are at the discretion of the instructor **IF** the student contacted the instructor **PRIOR** and it is determined it is a technology issue. The instructor will attempt to help as much as possible but technology at home is the responsibility of the student.

Electronic Devices

The use of electronic devices (cell phone, ipad, laptop, etc.) for purposes other than class participation is prohibited during class time. All cell phones are to be placed on silent mode or turned off and put away during class unless an exercise using cell phones is being utilized. Failure to comply with cell phone policy may cause the student to lose access to cell phone during class for the rest of the semester. This is a serious infraction and will be treated as such. Cell phones may be checked during the schedule break time of the class. Any recording of class content without expressed written consent of the instructor will be dealt with in a harsh fashion. This will be construed as cheating and dealt with in that manner.

Students may only tape record or video class activities and/or instructor with prior written permission of the instructor. If permission is granted, under no circumstance are students allowed to post recordings on any internet site or social networking site. The recording may only

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be utilized by the individual. Students who do not comply with this policy will be subject to disciplinary action, including removal from the Radiologic Technology program."

If inappropriate behavior continues, a report will be filed with the Grievance Committee in Student Development.

Refer to the General Conduct Policy in the Highlander Guide

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 education 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.

Please refer to the <u>Highlander Guide</u> for the complete policy.

MCC Course Evaluations:

Students will be asked to complete a course evaluation near the end of the semester. The overall goal of the evaluation is to improve performance by providing faculty with insight to better understand their students and how they learn. Your feedback is anonymously provided to me after the week of final exams is complete. Please provide honest and constructive responses to help me evaluate how I teach from your (the student's) perspective. I appreciate your participation in advance.

Please refer to Course Evaluations | McLennan Community College for more information.

MCC Attendance Policy:

Regular and punctual attendance is expected of all students, and a complete record of attendance will be kept by the instructor for the entire length of each course and will also be available to students through BrightSpace. Students will be counted absent from class meetings missed, beginning with the first official day of classes. Students, whether present or absent, are responsible for all material presented or assigned for a course and will be held accountable for such materials in the determination of course grades. In the case of online and hybrid courses, attendance will be determined in terms of participation, as described by in the course syllabus.

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The instructor may reinstate the student if satisfied that the student will resume regular attendance and will complete the course. Regardless of the reason for a particular absence, each classroom absence will count toward the 25 percent limitation. It is the student's responsibility to inform the instructor of the reason for an absence and to do so in a timely fashion.

COVID-19 Positive Alternative Plan for Fall 2021 for Attendance (must notify the instructor for the week and self-report through the MCC portal)

Students who must quarantine or self-isolate, and are too ill to participate, or in the event campus closes for all, will be expected to attend via synchronous Zoom and actively complete online course activities within strict weekly deadlines in this course. Attendance will be counted based on this participation. Instructors will not extend deadlines unless the reason for the missed work falls under extenuating circumstances such as death in the family, hospitalization, or other unforeseen event. This is up to the discretion of the instructor and the responsibility of the student to contact the instructor to communicate and resolve the situation. Please refer to the "Online Quizzes and Testing Policy:

Class Tardy/Late:

Is defined by the instructor of this class as any time past the originally scheduled time class is to begin. **Ex:** At 8:00, class has officially begun and the doors to the classroom will be locked. Once that has occurred, a student arriving after 8:00 will not be allowed classroom access until the first break of the morning usually 50 minutes after class begins. Habitual tardiness indicates a lack of discipline and will cause the student to miss valuable classroom material making it very difficult to succeed in the program.

Class breaks:

Students will be allowed to take a brief break at an approximate 50 minute intervals. Leaving while class is in session is disruptive to others. Since the doors will be locked at the beginning of class, students who leave during class will not be allowed to return until the official break time or when class is over. It is strongly advised to take care of any personal matters before class or wait until the official break time. Should you have an emergent situation and need to leave during class, please gather your belongings quietly and leave since you will not be allowed class access until the next break or until class is over. Special circumstances need to be discussed with the professor.

Click Here for the MCC Attendance/Absences Policy

(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

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/

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 a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and 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/Emergencygrant.html (Grant Application.pdf.

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.

Minimum System Rquirements to Utilize MCC's D2L|Brightspace:

Go to https://www.mclennan.edu/center-for-teaching-and-learning/Faculty%20and%20Staff%20Commons/requirements.html for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

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.

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 for help.

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.

MCC Academic Integrity Statement:

Go to <u>www.mclennan.edu/academic-integrity</u> for information about academic integrity, dishonesty, and cheating.

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.

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

disabilities@mclennan.edu 254-299-8122

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 Title IX Coordinator at titleix@mclennan.edu or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC 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/. 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.

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.