



RADR-2209-101C2-SP2025

Radiographic Equipment

Monday 4 pm – 8 pm

#### Instructor's name, email, and phone number

- Laura Schrettner
- [lschrettner@com.edu](mailto:lschrettner@com.edu)
- 409-933-8681

#### Student hours and location

- Monday 1-2 pm Room 225-51 or via Teams
- Tuesday 1-2 pm Room 225-51 or via Teams
- Thursday 10-12 pm Room 225-51 or via Teams
- You can schedule a time via this [link](#), or just stop by.
- During clinical site visits

#### Required textbooks/material

- **Textbook**
  - *Cloverleaf Learning Platform*
  - *Principles of Radiographic Imaging, 6th Edition.*
    - Carlton, Adler, Balac
    - ISBN 978-1-337-71106-7 Cengage
  - *Principles of Radiographic Imaging Workbook, 6th Edition.*
    - Carlton, Adler, Balac
    - ISBN 978-1-337-29311-7 Cengage
- **Brightspace D2L**
  - We will be using Brightspace D2L for this course, so you will need access to a computer and the Internet. There is also a **mobile-friendly** app and can be used on your phone or tablet through the or a mobile browser!
- **Computers**
  - You will need a computer with audio and video capabilities. Exams may be given online and require a webcam and microphone. While most of the tests will be in person, there may be times you are asked to take a proctored exam remotely. You may take your exams on campus, and computers are in the library and the tutoring center.

#### Course description:

Equipment and physics of x-ray production. Includes basic x-ray circuits. Also examines the relationship of conventional and digital equipment components to the imaging process.

## **Course Requirements**

- Attend all classes.
- Complete all exams and assignments.
- Participate in class activities and labs.
- Participate in group activities.

## **Determination of Course Grade/Grading Formula**

The Radiologic Technology program utilizes this course grading scale:

- 92-100 = A
- 80-89 = B
- 75-79 = C
- 69-74 = D
- 0 – 68 = F

## **Late Assignments/Make-Up Policy**

Late assignments are not accepted for any course in the Radiologic Technology Program. Students are responsible for completing all assignments and are responsible for any course content missed by absence or tardiness.

## **Attendance Policy**

Students are required to attend and participate in every session of all classes for which they are registered. Regular attendance is a critical component to being successful in courses. Students should consult with their instructors when it is necessary to miss a class prior to the class. COM recognizes no excused absences other than those prescribed by law: religious holy days and military service.

Students are expected to attend all didactic and lab classes.

Excessive absences (including arriving late and leaving early) prevents the student from meeting the objectives of the course and the Program. If a student is absent, they must contact the faculty before the start of class and explain the situation. A student who misses 10% of the course hours will be given a written warning for excessive absences. A student who misses 15% or more of the course hours is considered unable to complete the program objectives and can be removed from the class by an instructor-initiated withdrawal. Class activities missed during the absence may not be made up.

Please refer to the Leave policy for additional information.

## **Tardy**

A student who is not in class at the given start time of the class will be considered tardy. A student who is more than 10 minutes late may be refused entry into the class for that period at the discretion of the instructor. Entering class late or leaving early disrupts the class and is disrespectful to faculty and peers. Class activities missed during the absence may not be made up. Excessive tardiness will result in remediation. A student who cannot successfully complete a remediation plan due to excessive tardiness, can be removed from the class by an instructor-initiated withdrawal.

Extenuating Circumstances can be discussed with Program faculty.

### Communicating with your instructor

- All electronic communications with your instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.
- The best way to get a hold of me is through my school email - [lschrettner@com.edu](mailto:lschrettner@com.edu). If this is an emergency, please text me so I can get back to you sooner- 281-968-1626. You may also contact me through your course mailbox.
- If you are contacting me regarding a particular course, and you use the school email, please be sure to tell me which course you are referring to.
- Student hours are:
  - Monday 1-2 pm Room 225-51 or via Teams
  - Tuesday 1-2 pm Room 225-51 or via Teams
  - Thursday 10-12 pm Room 225-51 or via Teams
  - You can schedule a time via this [link](#), or just stop by.
- I will respond to emails within 48 hours, Monday through Friday. I check my emails various times throughout the day Monday through Friday, during regular business hours.

### Outcomes and Objectives Mapping

Upon completion of the course, the student will be able to:	Maps to Core Objective	Assessed with this assignment
Differentiate between conventional and digital equipment	Apply the knowledge and skills to be a clinically competent entry-level radiographer.	Exam
Explain the physics of x-ray production	Students will employ effective communication skills	Assignment – Electron Interactions
Describe the x-ray circuit	Students will employ effective communication skills	Assignment – Group project
Relate conventional and digital equipment components to the imaging process	Students will demonstrate independent critical thinking and problem-solving skills	Exam

### Academic Dishonesty statement

Academic Dishonesty: Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a grade of zero on that exam and the student will be referred to the Office of Student Conduct for appropriate discipline action. Unauthorized use of AI-content generators is a form of academic dishonesty.

### Plagiarism statement

Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website, and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a grade of zero and the student will be referred to the Office of Student Conduct for appropriate discipline action. Links to resources about avoiding plagiarism:

- [Purdue OWL](#)
- [Excelsior OWL](#)
- [YouTube UMass Dartmouth](#)

### Concerns/Questions Statement

If you have any questions or concerns about any aspect of this course, please contact me using the information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Laura Schrettner, Program Director, at 409-933-8681 or [lschrettner@com.edu](mailto:lschrettner@com.edu).

Please review the Radiologic Technology Student Handbook and the [COM Student Handbook](#) for the process.

Notice to Students Regarding Licensing Effective September 1, 2017, HB 1508 amends the Texas Occupations Code Section 53 that requires education providers to notify potential or enrolled students that a criminal history may make them ineligible for an occupational license upon program completion. The following website provides links to information about the licensing process and requirements: [www.tdlr.texas.gov](http://www.tdlr.texas.gov).

### Disclaimers / Additional Policies

Course policies are subject to change. It is the student's responsibility to check Brightspace/D2L for corrections or updates to the syllabus. Any changes will be posted in Brightspace/D2L.

The Radiologic Technology Program courses build upon each other. The ARRT board exam covers ALL content taught in the program. In each course, there will be test questions from prior modules within the course, as well as prior classes.

Handbook for more information on specific program policies.

### Course outline

Week	Content	Assignments
Week 1	Orientation to the course Chapter 1 - Basic Math Chapter 2 - Radiation Concepts	Worksheets 1-1, 1-2, 2-1, 2-2 Atom Building activity
Week 2	Module 1 Exam Chapter 3 - Electricity	Cloverleaf learning modules

Week 3	Chapter 3 - Electricity Chapter 4 - Electromagnetism	Circuit Inquiry worksheet Resistor Structure worksheet Series and Parallel Basics worksheet Exploring electric charges worksheet Generators, motors, and current worksheet Transformers worksheet Rectification worksheet Electric and Magnetic fields worksheet Magnets and electricity worksheet Electromagnetic generation Worksheet 4-3, 4-4, 4-5
Week 4	Module 2 Exam Chapters 5 - The x-ray tube Chapter 6 - The x-ray circuit	Worksheet 5-1 Worksheet 6-1 Cloverleaf learning x-ray tubes assignment
Week 5	Chapter 6 - The x-ray circuit Chapters 7- AEC	AEC Labs due Worksheets 7-1, 7-2, 7-3 Cloverleaf learning the X-ray circuit assignment Cloverleaf learning AEC assignment
Week 6	Module 3 Exam Chapter 8 - X-ray Production Chapter 9 - Radiation Protection Concepts	Worksheet 8-1 Electron interactions assignment
Week 7	Chapter 9 - Radiation Protection Concepts Chapter 10 - Radiation Protection Procedures	Worksheet 9-2 ASRT Video assignment Module 4 exam at home
Week 8	Final Exam	X-ray Display is due

The schedule is subject to change based on program and course needs.

Pop Quizzes may be given and will affect your grade in the course.

## Institutional Policies and Guidelines

### Grade Appeal Process

Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook [https://www.com.edu/student-services/docs/Student\\_Handbook\\_2024-2025\\_v3.pdf](https://www.com.edu/student-services/docs/Student_Handbook_2024-2025_v3.pdf). *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

### Academic Success & Support Services

College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

### **ADA Statement**

Any student with a documented disability needing academic accommodations is requested to contact:

- Kimberly Lachney, Student Accessibility Services Coordinator
- Phone: 409-933-8919
- Email: AccessibilityServices@com.edu
- Location: COM Doyle Family Administration Building, Student Success Center

### **Textbook Purchasing Statement**

A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

### **Withdrawal Policy**

Students may withdraw from this course for any reason prior to the last eligible day for a “W” grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw is May 7, 2025.

### **FN Grading**

The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

### **Early Alert Program**

The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

### **Resources to Help with Stress**

If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click here <https://www.com.edu/community-resource-center/>. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that

get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at [deanofstudents@com.edu](mailto:deanofstudents@com.edu) or [communityresources@com.edu](mailto:communityresources@com.edu).

### **Nondiscrimination Statement**

The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.

## Student services

### [Counseling](#)

Counseling Services offers free academic and personal counseling. Workshops and individual sessions are available to assist students in recognizing and resolving academic and personal concerns. Students who may need assistance with goal setting, problem solving, study skills, motivation, or communicating effectively are encouraged to access services in the Student Success Center located on the first floor of the Doyle Family Administration Building.

### [Tutoring](#)

Tutoring is available for Math, Science, and writing and is available face-to-face, online, or by eTutoring sessions.

### [Disability Services](#)

Accommodation is available to COM students with documented disabilities. To request accommodations, contact the Office for Students with Disabilities, located in the Student Success Center on the first floor of the Doyle Family Administration Building.

### [COM Library Radiologic Technology Page](#)

CM Library staff have created a webpage of resources, just for you.

### [Library](#)

The library hosts a variety of resources for students, including books, journals, and learning material. The library also hosts a computer lab accessible to students.

### [Trio-Student Support Services](#)

TRIO-Student Support Services (TRIO-SSS) is a federally funded grant program through the U.S. Department of Education that provides support for students in meeting their academic, personal, career and other education-related goals.