RADIOGRAPHIC TECHNOLOGY SEMINAR (RADR 2335 – 1A1)

LAMAR INSTITUTE OF TECHNOLOGY

INSTRUCTOR CONTACT INFORMATION

Instructor:	Brenda A. Barrow, M.Ed., R.T.
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Office Location:	232 Multipurpose Center
Office Hours:	office hours posted outside door and in Starfish

CREDIT

3 Semester Credit Hours (3 hours lecture, 0 hours lab)

MODE OF INSTRUCTION

This course will be taught with hybrid delivery. Tests will be administered on campus in a computer lab. This simulates how the ARRT Registry exam will be administered. This course will be delivered in a hybrid format utilizing Black Board LMS. The on-campus class is scheduled on Monday, however, there will occasionally be events and classes that the student will be required to attend on campus on Wednesdays.

PREREQUISITE

RADR 2305 Principles of Radiographic Imaging II

COURSE DESCRIPTION

A capstone course focusing on the synthesis of professional knowledge, skills, and attitudes in preparation for professional employment and lifelong learning.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to

A. Demonstrate entry level proficiency in knowledge, skills, and attitudes necessary for professional employment
B. Articulate the need for lifelong learning
C. Utilize knowledge, skills, and attitudes to demonstrate entry level proficiency for professional employment
D. Understand the importance of continuing education
E. Be aware of the recommended techniques and skills associated with test taking
F. Be aware of individual areas of weakness in the four areas covered (Patient Care, Safety, Image Production, Procedures)
G. Be prepared both mentally and psychologically to take the ARRT National Registry Examination for Radiologic Technologists

H. Be comfortable in taking computer generated tests
I. Submit applications for ARRT national Registry exam and TMB Texas license (or license from another state if moving post-graduation)

REQUIRED TEXTBOOK AND MATERIALS

- All previous radiology program textbooks.
- *Clover Learning Student Platform Online* Radiography Prep Website
- *ASRT Radiography Roadmap Prep course*
- A computer with internet access. The computer must be able to run current programs and platforms such as Windows 10 and the internet must be reliable and robust. The course has an online component and will move to a fully online format if necessary. The computer must have a camera and microphone for online conferencing.

CAPSTONE COURSE:

This is the capstone course for the Radiologic Technology program. The student will have to meet certain requirements for completion:

1. score at least a 77 in the course (RADR2335)
2. score an 80% or above on internet based 200? Mock ARRT Registry Review Exam Clover Learning Student Platform (online Registry prep course)
3. Complete ASRT Radiography Roadmap

COURSE REQUIREMENTS/ASSIGNMENTS:

1. All students will take a 215-question **pre-test** to access their current knowledge. This grade will *not* count toward the final course grade.

2. Students will submit 35 questions from the unit categories. ***Five questions from each area***: Positioning, Anatomy, General Technique, Digital Imaging, Physics/Equipment, Patient Care, Radiation Protection/Biology. Questions shall be short answer. No matching, true/false, multiple choice, or discussion type questions will be accepted. Questions shall be typed or printed legibly on 3 X 5-inch note cards, one question per note card. The card shall include question, underlined answer, reference book and page number, student's initials, and subject of card. **(REGISTRY REVIEW BOOKS OR STUDY GUIDES ARE NOT ACCEPTABLE REFERENCE BOOKS.)** This will assess the students writing skills.

   - *Students who have duplication over 40% (16 questions) of another student will receive a deduction of **10 POINTS** from their category test score. **2 POINTS** will be deducted from the cumulative points for each class the cards are late.*

3. Cumulative points will be awarded for prep-bowl and other opportunities during the semester as they arise. Also points may be deducted from the cumulative points for failure to turn in assignments on time or absence on prep-bowl days (see rules). ***CUMLATIVE POINTS:*** *PENALTY POINTS and EXTRA POINTS* will be added to the total category test score (before averaging).

4. Students will participate as a team in a "Prep Bowl" style competition. This will help build self-esteem. Read the attached rules. Students can gain extra points by winning rounds of the Prep Bowl competition.

- ❖ *Missing or being late for the assigned time to play will result in a loss of **5 POINTS** from the student's Cumulative Points for each time late or missed.*

5. Assignments will be made in Blackboard from the Mosby's Comprehensive Review of Radiography Workbook. These will be pass/fail.

- ❖ *Failure to complete the assignment by the required date will result in a deduction of **5 points** from the cumulative points*.

6. Students will create and submit a ***resume***.

- ❖ *Failure to complete the assignment by the required date will result in a deduction of **5 points** from the cumulative points*.

7. Complete the review outline in the ***ARRT Certification Handbook*** for each corresponding test section.

- ❖ *Failure to turn in the review on time will result in a deduction of **5 POINTS** from their cumulative points per class it is late.*

8. Each student will complete assignments from ***Radiography Roadmap by ASRT***. These will be submitted in Blackboard. The SEAL tests will be retaken until student has a score of 80% or higher.

- ❖ *Failure to turn in the assignment on time will result in a deduction of **5 POINTS** from their cumulative points **per class** it is late.*

9. Each student will be required to take an online exam in ***Clover Learning Student Platform*** for each section discussed (patient care, safety, procedures, image production and radiation safety). Each exam will be **100 questions**. The student will take the exams online until they score at least an **80%.** The certificate with score should be submitted in Blackboard by the dates listed in this syllabus.

- ❖ *Failure to turn in the test on time will result in a deduction of **5 POINTS** from their cumulative points **per class** it is late.* If the student has not passed the online test they should submit their current score each week to show that they are working on it. This teaches the student self-management and responsibility.

10. ARRT Mock exam in ***Clover Learning Student Platform*** will include all sections. It will be **200** questions. This is a timed 210-minute exam. *Students not scoring an **80%** by the end of the semester will not be eligible for the final exam and will be given an incomplete (I) in the course and will not be allowed to graduate.* Those receiving an incomplete (I) will not be allowed to take the Registry until such time that successful remediation is completed.

11. Students will attend a two-day Kettering Radiography Review Workshop. This will be partially paid from RTSO funds depending on the students' participation points. Any other expense is expected to be paid by the student.

FEES will be paid *online* to the requiring agency: (fees are subject to change)

- $225 American Registry Radiologic Technologist (national exam)
- $80 Texas Medical Board - General Radiologic Technology (state MRT license)

- $38.50 Fingerprinting for state license
- $34 Jurisprudence exam for state license
- Graduation fees (diploma, cap, gown)

ATTENDANCE and COURSE POLICIES:

- No food, drinks, or use of tobacco products in class.
- Phones, headphones, and any other electronic devices must be turned off while in class.
- Recording devices may be used except during test reviews and when otherwise stated by the instructor.
- Lap top computers, I-pad… may be used to take notes during class but may not be used to "surf" the internet, look-up answers, nor anything not directly related to note taking.
- It shall be considered a breach of academic integrity (cheating) to use or possess on your body any of the following devices during any examination unless it is required for that examination and approved by the instructor: Cell phone, smart watch/watch phone, laptop, tablet, electronic communication devices (including optical), and earphones connected to or used as electronic communication devices.
    - *This is a violation of the Radiologic Technology Student Handbook and will result in dismissal from the program.*

  Students with special needs and/or medical emergencies or situations should communicate with their instructor regarding individual exceptions/provisions. It is the student's responsibility to communicate such needs to the instructor.
- Do not bring children to class.
- If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
- **Attendance Policy:** Class attendance is important to ensure that a student receives the knowledge and skills necessary to be successful in the Radiologic Technology program. Students are expected to be in class on time. If a student is tardy they may enter only if they do so quietly.

  When it becomes necessary to miss a session, it is the responsibility of the *student* to contact the instructor and to inquire about assignments. The student must get the notes from a classmate. If a major test is missed, the test will be administered at the first day the student returns to class or at a time designated by the instructor. There will be a **ten (10) point** reduction for make-up exams unless previously approved by the instructor for extenuating circumstance.
- ***Any student who fails to pass a test will be required to attend mandatory tutorial. This may be done before or after class or at lunch break. The tutorial may be individual or in a group session.***

DROP POLICY
If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT
For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

GRADING SCALE
A = 93 - 100 B = 84 - 92
C = 77 - 83 D = 60 - 76
F = 0 - 59
* A minimum of 77% is required for successful completion of this course!
LIT does not use +/- grading scales

COURSE EVALUATION:
Grades will be determined in the following manner:

1. (5) MAJOR CATEGORY TESTS and CUMLATIVE EXTRA POINTS 50%
2. 200? COMPREHENSIVE FINAL 50%

ACADEMIC DISHONESTY
Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty.

ADDITIONAL COURSE POLICIES/INFORMATION
COURSE OUTLINE:

By the end of the semester the student will:
1. Develop a resume
2. List important steps to a good job interview
3. Discuss test taking tips and study skills
4. The student will know their weak areas in radiology from scores on pre-test
5. Prepare questions for "Prep Bowl" Competition in their weakest areas.
6. Complete five (5) 100 question Clover Learning Student Platform web-based exams with an **80% or higher**
    a. Patient Care
    b. Safety

c. Radiation Protection
d. Procedures
e. Image Production

7. Complete the ASRT Radiography Roadmap assignments and SEAL tests scoring **80% or higher.**
8. Compete in "Prep Bowl" type competition
    a. Safety
    b. Image Production
    c. Procedures
    d. Patient Care
    e. Radiation Protection
8. Review the following areas using skills required in the objectives of each course
        A. Image Production - RADR 1313, RADR 2305, and RADR 2333
        B. Procedures - RADR 1411 & RADR 2401
        C. Safety - RADR 2309
        D. Patient Care - HPRS 1204 & RADR 1203
        E. Radiation Biology & Protection - RADR 2313
9. Apply for Texas Medical Board- Medical Radiologic Technologists License or state(s) of your choice.
10. Apply to take the American Registry Radiologic Technologists national registry exam.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at https://lit.edu/online-learning/online-learning-minimum-computer-requirements. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at Special Populations - Lamar Institute of Technology (lit.edu).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at

www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

COURSE CALENDAR 8:00 – 9:30 Mondays (class days will switch to Wednesdays some weeks)

DATE	*FACE-TO-FACE*	*HYBRID*	*REMEDIATION/ASSIGNMENT*
Jan 20	MLK no class	Jan 22	Introduction to Course 215? Pre-Test (grade does not count)
Jan 27	ARRT Application and videos	Jan 29	Test tips video Registry Prep Assignment
Feb 3	Patient Care Prep Bowl Cards Due	Feb 5	Pt Care video 4 month ASRT Roadmap and SEAL #1 test due
Feb 10	Patient Care Test 100? Pt Care Clover Learning due ARRT outline due	Feb 12	Start process of applying for TMB and ARRT Remediation Patient Care - 8:00 am
Feb 17	Review Pt Care test & Procedures Prep Bowl	Feb 19	Procedures video
Feb 24	Procedures Test 100? Procedures Clover Learning due ARRT outline due	Feb 26	Rad Protection video Remediate Procedures/Positioning – 8:00 am
Mar 3	Review Procedures test Radiation Protection Prep Bowl	Mar 5	Resume Writing video 3 month ASRT Roadmap and SEAL #2 test due
Mar 17 virtual	Interviewing Video Resume due	**Mar 19** Face-to-face	Radiation Protection Test 100? Rad Bio Clover Learning due ARRT outline due
Mar 24	Review over Rad. Protection Test & Safety/Equipment (physics) prep bowl	Mar 26	Remediate Radiation Protection – 8:00 am Safety/Equipment (physics) video Career Path Assignment
Mar 31	Safety/Equipment (physics) Test 100? Safety/Equipment Clover Learning due ARRT outline due	Apr 2	Remediate Safety/Equipment – 8:00 am 2 month ASRT Roadmap and SEAL #3 test due
Apr 7	Review Safety/Equipment (physics) test & Image Production/Digital Prep Bowl	Apr 9	Image Production & Digital Imaging videos
Apr 14	Image Production/Digital Test 100? Image Production Clover Learning due ARRT outline due	Apr 16	Remediate Image Production/Technique & Digital – 8:00 am 1 month ASRT Roadmap and SEAL #4 test due
Apr 21	Review over Image Production / Digital Test & Grand Champion Prep Bowl	Apr 23	200? Comprehensive Clover Learning due
APR 24 & 25	KETTERING at LIT		
Apr 28 virtual	Study for final	Apr 30 Face-to-face	FINAL Exam
May 5	Review over Final	MAY 15	GRADUATION

RADIOLOGY "PREP BOWL" RULES

A. Preparation

1. Teams will consist of three or four people as originally assigned.
2. Attendance is critical. If a player is late or absent the team will continue to play.
   A. If the team wins the member(s) present will receive the points (2) but will **not** advance to the play-off round. Instead the team with the next highest points will advance.
   B. Those team members that are late or absent will have **five points** deducted from their cumulative points.
3. The judges will be Mrs. Barrow and/or her designate.
4. One of the judges will read the questions aloud and the other will keep score.

B. Play

1. The question will be read aloud.
2. The teams will have **20 seconds** to respond, after the completion of the reading of the question.
3. Any team member can hit the buzzer during or at the conclusion of the reading of the question.
4. Once the buzzer sounds, the reading of the question will stop.
5. The reader will call on the person who buzzed in for a response and he or she will have **20 seconds** for a response.
6. Team members can help or confer with the person answering the question.
7. If the judges hear or see any collaboration from the audience the question will be thrown out.
8. If the question is answered correctly the team receives **1 point**.
9. If the question is answered incorrectly **1 point** will be deducted and the other team will have the question reread and given **20 seconds** to respond. This team may confer upon the answer.
10. If the question is answered correctly the team will receive **1 point** and if answered incorrectly **1 point** will be deducted. The team may pass on the question and no points will be deducted. A new question will then be read and play will continue.
11. At the end of **15 minutes** a buzzer will sound, signaling the end of the game. If a question is being read during this time it will be completed and teams allowed to answer.
12. If teams are tied at the end of 15 minutes, there will continue until there is a 2-point difference in the score.

TEAMS

TEAM "A"

Jennifer

Karigan

Mai

TEAM "B"

Emily

Erin

Amanda

TEAM "C"

Kim

Kaitlyn

Corbin

TEAM "D"

Hannah

Cody

Jacob

TEAM "E"

Kara

Angela

Lucy

TEAM “F”

Josefine

Thomas

SCHEDULE OF PLAY

PATIENT CARE

February 3

8:10 to 8:25

TEAM A, TEAM B, TEAM C

WINNER (2pts)

8:35 to 8:50

TEAM D, TEAM E, TEAM F

WINNER (2pts)

9:00 to 9:15

WINNER (2pts)

RADIOGRAPHIC PROCEDURES (POSITIONING & ANATOMY)

February 17

8:10 to 8:25

TEAM B, TEAM C, TEAM D

WINNER (2pts)

8:35 to 8:50

TEAM E, TEAM F, TEAM A

WINNER (2pts)

9:00 to 9:15

WINNER (2pts)

RADIATION PROTECTION

March 3

8:10 to 8:25

TEAM C, TEAM D, TEAM E

WINNER (2pts)

8:35 to 8:50

TEAM F, TEAM A, TEAM B

WINNER (2pts)

9:00 to 9:15

WINNER (2pts)

SAFETY (EQUIPMENT AND RADIATION PROTECTION)

March 24

8:10 to 8:25

TEAM E, TEAM F, TEAM A

WINNER (2pts)

8:35 to 8:50

TEAM B, TEAM C, TEAM D

WINNER (2pts)

9:00 to 9:15

WINNER (2pts)

IMAGE PRODUCTION

(TECHNIQUE & DIGITAL)

APRIL 7

8:10 to 8:25

TEAM F, TEAM A, TEAM B

WINNER (2pts)

8:35 to 8:50

TEAM C, TEAM D, TEAM E

WINNER (2pts)

9:00 to 9:15

WINNER (2pts)

REVIEW - ALL CATEGORIES -- FINALS

APRIL 21 (20 MIN. ROUND)

8:10 to 8:25

TEAM A, TEAM C, TEAM E

WINNER (2pts)

8:35 to 8:50

TEAM B, TEAM D, TEAM F

WINNER (2pts)

9:00 to 9:15

WINNER **(2pts)**