



**Course Syllabus
SEMESTER
School of Nursing and Health Professions**

Course Name:	Safety and Patient Care in Computed Tomography
Course & Section Number:	MIT253-XXX:Safety & Patient Care in CT
Meeting Day(s) & Time(s):	
Credits:	4
Instructor's Name:*	
Student Hours (Formerly Office Hours) & Location:	
OCC Email:**	
Additional Contact Information:	

**Please only use your student OCC email to contact me.

Catalog Description:

MIT 253 - Safety & Patient Care in CT

A course for the medical imager preparing for the A.R.R.T. advanced level CT certification examination. Patient care issues include culturally competent care, application of radiation protection, special needs of pediatric patients including pediatric protocols, conscious sedations protocols, ECG tracings and the Glasgow coma scale. Topics also include patient preparation, indications and contraindications of contrast media injections, and pharmacology of medications utilized in the computed tomography suite. Issues regarding various medication delivery devices and invasive procedures performed in computed tomography will be discussed.

Co-requisites: NONE

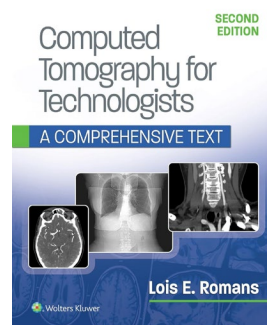
Prerequisites: Certification in Medical Imaging or permission of the department chair.

Credits: 4

School: School of Nursing & Health Professions **Department:** Medical Imaging Technology

Course Materials:

1. COMPUTED TOMOGRAPHY FOR TECHNOLOGISTS: A COMPREHENSIVE TEXT
ROMANS, LOIS
ISBN13: 9781496375858
EDITION: 2ND
FORMAT: PAPERBACK
PUBLISHER: LWW
COPYRIGHT: 9/29/2018



2. Windows Computer

OER and Owens Community College Library Resources (Open Educational Resources are free online materials for instructor and student use. Some OER material may be available in print in the Owens Community College Library.)

What You Will Learn in This Course:

Course Objectives:

This course will...

1. Completion of this course will assist the student in passing the advanced level certification examination offered to individuals certified in Medical Imaging.
2. Upon completion of this course, the student will describe the measures necessary to achieve optimal communication with the patient, assessment of the patient and care for the patient.
3. Upon completion of this course, the student will identify and manage patient safety concerns when caring for patients in the computed tomography suite.

Student Learning Outcomes:

Student will...

1. Apply the principles of radiation protection when setting up computed tomography protocols.
2. Describe how patients of varying ages, cultures and medical experiences affect a patient's understanding of care in computed tomography.
3. Identify the drugs used in computed tomography and describe safety issues for the administration of these drugs.

4. Explain the medications and assessments needed for patients receiving sedation during an examination.
5. Describe the legal and ethical issues that arise when performing a biopsy, drainage or contrast media examination with a power injector through various medical delivery devices.
6. Identify the pharmacology of contrast media including peak phases.
7. Apply knowledge of the medications commonly administered during procedures.
8. Describe the patient preparations needed for examinations and the post examination instructions.
9. Apply the protocols for pediatric patients, biopsies, drainages, treatment planning and stereotactic studies.

Technology, Lab, & File Requirements:

The Blackboard Learning System is an online course environment available for all Owens courses, even those that are not web-based. Blackboard offers students a resource where they can communicate and collaborate with instructors and fellow students outside of the physical classroom. The Radiologic Technologies Department integrates Blackboard into each course, and it is essential for all students to become familiar with the system. Check the STUDENT HELP AND RESOURCES tab on the blackboard shell for information on technical support and Software/Hardware requirements for utilizing Blackboard to complete assignments and communicate with peers and faculty.

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit <https://www.owens.edu/disability/>, or stop by College Hall 124.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: <https://www.owens.edu/successcenters/>.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at <https://www.owens.edu/counseling/>.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 123) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information: <https://www.owens.edu/connection/> or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit <https://www.owens.edu/library/>.

Students can find more information on campus resources, student support, student life, and security at this [link](#).

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's [Student Code of Conduct](#), which includes academic honesty, encompassing plagiarism. See the [Board Policy](#) for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's [Anti-Discrimination and Harassment Policy](#) and the College's [Title IX Policy](#)/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu. The policy may be found on the Owens website: [3358:11-2-63 Accommodation](#) for a Student Absence for the Observance of Religious Beliefs and Practices Policy

Classroom Admittance: OCC classes shall only be attended by the officially registered OCC students or perspective students, instructor of record, guest lecturer, or substitute. Visitors are not permitted to be in the classroom and should not be invited to attend or participate in the class. See [FERPA](#) regulations for more information.

Use of AI Tools:

This course permits you to use artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, to get guidance on assignments, as long as you do so in an ethical and responsible manner. Essentially, you can think of these tools as ways to help you learn but not to entirely create work for assignments like discussion board posts, essays, presentation slides, and so on. AI is more like your tutor or TA, not a replacement for your independent thinking.

This means that you must:

- Not use AI tools to replace your own thinking or analysis or to avoid engaging with the course content.
- Cite or explain any AI tools you use. Provide the name of the AI tool, the date of access, the URL of the interface, and the specific prompt or query you used to generate the output.
- Be transparent and honest about how you used the AI tool and how it contributed to your assignment. Explain what you learned from the AI tool, how you verified its accuracy and reliability, how you integrated its output with your own work, and how you acknowledged its limitations and biases.

You are accountable for any mistakes or errors made by the AI tool. Always check and edit the output before submitting your work. If you discover any inaccuracies or inconsistencies in the output after submission, notify the instructor immediately and correct them as soon as possible. Using AI tools in an unethical or irresponsible manner, such as copying or paraphrasing the output without citation or transparency, using the output as your own work without verification or

integration, or using the output to misrepresent your knowledge or skills, is considered a form of academic dishonesty and will result in a zero grade for the assignment and possible disciplinary action. If you have any questions about what constitutes ethical and responsible use of AI tools, please consult with the instructor **before** submitting your work.

All written assignments, projects, and exams must be completed independently.

Student Responsibilities and Instructor Expectations

Instructor's Responsibilities:

Answering Emails:

Communication with the Instructor (Online Course)

Students are expected to use appropriate and professional communication channels when contacting the instructor.

- **Discussion Board:**
General course-related questions should be posted to the designated Blackboard discussion board by selecting *"Add a Thread."* Questions posted here allow all students to benefit from the response.
- **Email Communication:**
Email may be used for individual concerns, technical issues, and questions related to quizzes or tests. Students must use their Owens Community College email account for all correspondence to comply with FERPA requirements. Emails sent from personal accounts will not receive a response. All emails must include the student's **full name, course number, and section**. Emails lacking this information may result in delayed responses.
- **Phone Communication:**
Students may contact the instructor by telephone using the number provided in the syllabus for urgent or private matters.
- **Virtual Meetings:**
Students may request a virtual meeting through the Blackboard Virtual Classroom or other instructor-designated platform. Please reach out to the instructor to schedule

Instructor Response Time:

Students can expect responses to emails and phone messages within:

- **0–48 hours** from Sunday through Thursday
- **0–72 hours** on messages sent Friday or Saturday

Response times do not include college closures, holidays, or emergencies.

Announcements:

The instructor will post course announcements, updates, reminders, and clarifications on the Blackboard Announcement page and may also distribute them through Owens email. Students are responsible for reviewing all announcements in a timely manner.

Facilitating Successful Completion of the Course:

Questions, concerns, and relevant experiences related to course content and the professional field are encouraged. Learning in this course is collaborative, and students are expected to actively engage with course materials and communication opportunities provided online.

Students should use designated Blackboard discussion areas, announcements, and email to ask questions and seek clarification. If additional support is needed, students are encouraged to contact the instructor during posted student hours or via Owens Community College email. The instructor may initiate contact with individual students or the class as needed to address concerns, clarify expectations, or support academic progress. Referrals to appropriate campus resources will be made when appropriate to support student success.

Student Responsibilities:

Attendance/Participation:

Active participation in course discussions, activities, and online learning modules is required. Participation is defined as timely engagement with posted content, completion of assigned activities, and meaningful interaction in designated Blackboard areas. Failure to regularly participate in the online course environment may negatively impact academic performance.

Assignment submission:

Students are responsible for knowing assignment due dates and submission requirements as outlined in the assignment calendar and individual assignment instructions on the Blackboard course site. Assignments must be submitted through the designated Blackboard links in the required format. Submissions sent via email or alternative methods will not be accepted unless explicitly approved in advance.

Check Email/Blackboard Shell:

All course announcements, updates, and official communication will be delivered through Owens email and/or posted on the Blackboard course site. Students are required to check their Owens email daily and log into Blackboard regularly. Failure to review announcements or course updates does not excuse missed assignments, assessments, or deadlines.

Tests/Quizzes:

All test, quiz, and assignment dates are listed on the course assignment calendar. All assessments will be administered through Blackboard and must be completed within the stated availability window. Students are responsible for ensuring they meet all technical and timing requirements.

Contacting the Instructor:

Email is the primary method of communication. Students must use their Owens Community College email account and include the course number and section in the subject line. Messages sent without proper identification may experience delayed responses.

Instructor Discrepancies:

If at any time throughout the semester you have a problem with the course and/or instructor, contact the instructor. If the issue cannot be resolved after discussion with the instructor, see the Department Chair: NAME, TELEPHONE NUMBER, LOCATION, EMAIL.

Respectful Online Class Communication:

This online course is a professional learning environment. All students and faculty are expected to communicate respectfully and professionally in all forms of interaction, including discussion boards, emails, announcements, virtual meetings, and any other course-related communication. Disrespectful, inappropriate, disruptive, or unprofessional language or behavior will not be tolerated and may result in disciplinary action in accordance with college and program policies.

Students are required to review the professional communication guidelines provided in the Blackboard course site, including the posted presentation on polite and professional email communication. Failure to follow these guidelines does not excuse inappropriate communication.

Social Media Use:

The use of YouTube, Facebook, Instagram, Twitter, Discord, SMARTkapp or any other internet share site to distribute any course, campus lab, or clinical photos, audio recordings, or video recordings is prohibited unless written permission is received from all people involved. Using these sites to display comments about faculty, peers, staff, and/or patients is in conflict with our policies. Such comments may result in disciplinary action. Written permission involves completion of "OWENS COMMUNITY COLLEGE CONSENT FORM".

How Grades are determined and major assignments.

Weighted Grade Scheme:

Breakdown of Course Grades

The course grade is divided as follows:

The grading will be subdivided as follows:

Quiz 1	35
Quiz 2	30
Quiz 3	16
Quiz 4	22
Quiz 5	34
Quiz 6	26
Quiz 7	37
Test One	240
Test Two	240
Test Three	240
Class Discussion participation	<u>80</u>
Total	1000 points

Grading Procedure:

Grading Procedure: The grading scale for the course is

93 – 100%	A
85 – 92%	B
76 – 84%	C
60 – 75%	D
59% or below	F

Lecture Class Assignments

Lecture Course Materials and Blackboard Access (Online Course)

The course syllabus, lecture objectives, lecture handouts, and worksheet assignments are available exclusively through the course Blackboard site and are accessible only to students officially registered for this online course through Owens Community College.

It is the student's sole responsibility to access Blackboard on a regular basis, review all posted materials, and download or print course content as needed to complete coursework and assessments. Failure to access Blackboard, review posted materials, or manage personal technology does not excuse missed assignments, assessments, or deadlines.

All instruction, lectures, assessments, email communication, announcements, and grade feedback will occur exclusively within the Blackboard course site. Students will not have access to the Blackboard course site prior to the official first day of the course. Lack of early access does not constitute grounds for extensions, alternative deadlines, or exceptions.

Online Lecture Quizzes and Assessments

All lecture materials and assessment quizzes are available online through the Blackboard course site at the start of the course. Quizzes consist of multiple-choice questions, and students are required to select the single best answer for each question.

Quiz content is drawn from **both instructional modules assigned for the week**. Students are responsible for reviewing all assigned materials prior to beginning each quiz.

Quizzes are designated as **self-check assessments**, are **open note**, and have **no time limit**. However, all quizzes must be completed **individually**. Students may not confer with other students, technologists, or any outside individuals while completing quizzes.

Copying, photographing, downloading, printing, or otherwise reproducing quiz content is strictly prohibited. Quiz questions are delivered **one at a time** to maintain assessment security.

All quizzes must be completed by the stated course deadline of DATE at TIME. Late submissions will not be accepted under any circumstances.

Online Tests

All tests for this course are available online through the Blackboard course site at the beginning of the course. There are three (3) tests in total. The specific material covered on each test is identified in the assignment calendar included in this syllabus. Students are expected to review all assigned readings, lecture materials, and complete the related quizzes prior to attempting each test.

Tests are **closed book and closed note**. Students may not use textbooks, notes, reading assignments, outside resources, or confer with other students, technologists, or any individuals while taking an assessment. Copying, photographing, downloading, printing, or otherwise reproducing any portion of a test is strictly prohibited.

For assessment security, test questions are delivered **one question at a time**, and test answers will not be released until **all students in the course have completed the assessment**.

Each test has a **time limit of one and one-half (1.5) hours**. Once started, the test must be completed within the allotted time.

All tests must be completed by the course deadline of DATE at TIME. Late submissions will not be accepted under any circumstances.

If a student experiences a technical issue during a test or anticipates being unable to complete a test by the deadline, the instructor must be contacted **immediately**. Failure to notify the instructor prior to the deadline does not constitute grounds for an extension or make-up test.

Online Class Discussions

Online discussions are designed to enhance learning through professional dialogue and the sharing of relevant experiences within the medical imaging field. Students are expected to participate thoughtfully and professionally.

For **Weeks 1–6**, students are required to:

- Submit **one original discussion post**, and
- Submit **one reply** to a peer's post

For **Week 7**, students are required to submit **one final discussion post only**. No reply is required for Week 7.

All discussion posts and replies must be completed **within the assigned weekly time frame** to receive full credit. Late submissions will result in a deduction of **one (1) point per week late** for the discussion post and **one (1) point per week late** for the reply.

If a student is unable to complete a discussion post or reply within the required time frame, the student must contact the instructor **before the deadline**.

Each original discussion post is worth **five (5) points**, and each reply is worth **five (5) points**, for a total of **ten (10) points per discussion week**.

All discussion posts and replies must be submitted by the final course deadline of DATE at TIME. Submissions after this deadline will receive **no credit**.

Viewing Course Grades

Grades for all assignments, discussions, quizzes, and tests will be posted in the Blackboard course site. Students may view **only their own grades**. Please allow up to **one (1) week** after an assessment deadline for grades to be posted. If more than one week has passed since completion and a grade has not been posted, students should contact the instructor. Current course grades may be posted periodically in the Blackboard Grade Center for student review.

Patient Confidentiality and Professional Conduct

Patient confidentiality is a legal and ethical requirement. All patients, including relatives, friends, and acquaintances, have the right to privacy regarding their medical history, treatment, care, and prognosis.

Students may **not retrieve, access, disclose, or discuss** patient information with anyone without explicit authorization from the supervising technologist.

When participating in discussion boards or submitting coursework:

- Do **not** name clinical sites
- Do **not** include patient names
- Do **not** include identifying details of any kind

When confidential information is used for educational purposes, **all identifying information must be fully removed** from medical records or diagnostic images prior to removal from the clinical education center.

Students must follow the **Medical Records Removal Procedure** as outlined in the Procedure Manual. **Any violation of patient confidentiality or medical record handling constitutes a Group I Violation.**

A Group I Violation will result in **immediate course failure and permanent removal from the program with no opportunity for reentry.**

As a member of the Radiologic Technologies Department, students represent Owens Community College and all affiliated clinical facilities. Unprofessional conduct or behavior inconsistent with proper patient care may result in denial of clinical participation at the discretion of the clinical site.

Weekly Modules and Discussion Posting Schedule

The following schedule outlines required discussion posting periods and serves as a recommended timeline for completing readings, quizzes, and tests.

Week 1: DATE

- Patient Care and Assessment
- Age-Appropriate Care
- Culturally Appropriate Care
- Medical History and Patient Charting

Week 2: DATE

- Ethical and Legal Issues
- Application of Radiation Protection Principles

Week 3: DATE

- Infection Control

Week 4: DATE

- Principles of Pharmacology
- Pharmacokinetics
- Pharmacodynamics
- Importance of Laboratory Testing

Week 5: DATE

Iodine and Contrast Media

- Routes of Administration
- Injectors
- Anesthesia Medications
- Conscious Sedation

Week 6: DATE

Common Medications and Patient Preparation

- Medications for Management of Reactions

Week 7: DATE

- Pediatric Protocols
- Biopsies, Drainage, Treatment Planning, and Stereotactic Studies

Week 8: DATE

Course Deadline and Final Submission Policy

The official course deadline is **DATE at TIME**. All course requirements—including discussions, replies, quizzes, and tests—**must be completed by this deadline**. No assignments, quizzes, or tests will be accepted after this date and time for any reason. Any incomplete or missing coursework will receive a grade of **zero (0)**. Failure to manage time, technology, or course responsibilities does not excuse missed deadlines.

MIT 253 Schedule SEMESTER

Week	Power point reading assignments	Lois Romans reading assignments	Assessments
Week 1 DATE	Module One-Patient Care and Assessment module Module Two- Age-appropriate care module Module Three-Culturally appropriate care module Module Four-Medical History and Patient Charting Module	Read Chapter 10 Patient Communication pg. 107-113 Read pg 114-117	Complete Week 1 Forum discussion by Friday Jan 16th at midnight. Reply to one other learner by DATE at TIME. <i>Take Quiz 1</i>
Week 2 DATE			
	Module One-Ethical and Legal Issue Module Two-Application of Radiation Protection Principles	Read Chapter 14 Radiation Dosimetry in CT pg. 171-188 Read Chapter 6 Image Quality pg 60-73	Complete Week 2 forum discussion by DATE at TIME. Reply to one other learner by DATE at TIME. <i>Take Quiz 2.</i>
Week 3 DATE			

	Complete Week Three Module One- Infection Control		<i>Take Test 1</i> Complete Week 3 forum discussion by DATE at TIME. Reply to another learner by DATE at TIME. <i>Take quiz 3.</i>
Week 4 DATE			
	Week Four Module One- Principles of Pharmacology Week Four Module Two- Pharmacokinetics power point Week Four Module Three- Pharmacodynamics Week Four Module Four- Importance of Laboratory Testing	Read Assessment and Monitoring Vital Signs starting on pg. 119.	Week 4 discussion by DATE at TIME. Reply to another learner by DATE at TIME. <i>Take Quiz 4.</i>
Week 5 DATE	Week Five Module One- Iodine and Contrast Media Week Five Module Two- Routes of Administration	Read Ch. 12 Contrast Agents pg. 125-147 Read Ch. 13 Injection Techniques pg. 148-170	Complete Week 5 discussion forum by DATE at TIME. Reply to another learner by DATE at TIME. <i>Take Quiz 5</i>

	Week Five Module Three- Injectors Week Five Module Four-Anesthesia Medications Week Five Module Five- Conscious Sedation		
Week 6 DATE			
	Week 6 Module One- Common Medications and Patient Preps Week 6 Module Two- Medications for Management of Reactions.	Review Chapter 11 Patient Preparation pg. 114-124	<i>Take Test 2</i> Complete Week 6 forum discussion by DATE at TIME. Reply to another learner by DATE at TIME. <i>Take quiz 6.</i>
Week 7 DATE			

	Week Seven Module One- Pediatric Protocols Week Seven Module Two- Biopsies and Drainage, Treatment Planning, and Stereotactic Studies	Read Imaging Techniques for CT-Guided Interventions pg. 351 Read Indications for CT-Guided Procedures pg. 352	Week 7 Discussion forum by DATE at TIME. Reply to another learner by DATE at TIME. <i>Take Quiz #7</i>
Week 8 DATE			<i>Take Test 3</i> <i>Complete Final Forum</i>
Friday* DATE	<i>*End of course at TIME</i>		

Disclaimer: Disclaimer: “The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course.”