



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

**SECTIONAL ANATOMY FOR MEDICAL IMAGING
RADR 2240 F1**

MEREDITH R. BROWN, MS, RT (R)

Note: This is an 8-week course.

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Course Description:

In-depth coverage of anatomic relationships that are present under various sectional orientations as depicted by computed tomography and magnetic resonance imaging. Semester Hours 2 (2 lec)

Prerequisites and/or Corequisites:

Successful completion of previous RADR courses. Concurrent enrollment in second year Radiologic Technology courses.

Course Notes and Instructor Recommendations:

This course is taught via two-way interactive instruction. Image content is very important in this course; students will be expected to use Brightspace and internet resources to enhance their learning experience. This class is a two-way interactive video class in format.

Instructor Information:

Instructor Name: Meredith R. Brown

MCC E-mail: mbrown@mclennan.edu

Office Phone Number: 254-299-8342

Office Location: CSC C202

Office/Teacher Conference Hours: See schedule posted outside office or contact me by phone or email for an appointments for additional assistance or guidance.

Required Text & Materials:

Title: Sectional Anatomy for Imaging Professionals

Author: Lorrie L. Kelley & Connie M. Petersen

Edition: 3rd.

Publisher: Mosby

ISBN-13: 978-0-323-02003-9

[MCC Bookstore Website](#)

* **[Click Here for the Minimum System Requirements to Utilize MCC's Brightspace](#)**

(www.mclennan.edu/center-for-teaching-and-learning/teaching-commons/requirements)

Click on the link above for information on the minimum system requirements needed to reliably access your courses in MCC's Brightspace learning management system.

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Methods of Teaching and Learning:

The course is taught face to face with an interactive ASRT Sectional Anatomy modular program, Ziltron Srimulator software, and lecture to provide a comprehensive study of radiographic images from cross sectional imaging modalities. Journal article study is used to supplement the textbook and lecture notes. Brightspace is used to supplement the didactic campus classroom. Internet access and participation is required for this course. Assessments of learning are done online and in the classroom. Grades are based upon daily assignments, major exams and the final exam grade.

Course Objectives and/or Competencies:

The student will describe anatomical structures of the body and identify those structures on sectional images obtained through various imaging modalities. Pertinent pathologic processes that affect each of the area of the body will be discussed and identified using sectional imaging techniques.

Chapter 1 – Introduction to Sectional Imaging

After completion of this unit, the student will be able to:

1. State anatomic planes and positions. (F01, F02)
2. List body landmarks, cavities, regions, and quadrants. (F01, F02).
3. Discuss factors that affect gray scale and multiplanar reformation. (F01, F02).

Chapter 2 – The Cranium & Facial Bones

After completion of this unit, the student will be able to:

1. Identify the bones that make up the cranium. (F01, F02)
2. Identify the structures of that cranium that are visualized in sectional imaging. (F01, F02)
3. Identify the bones that make up the facial bones. (F01, F02)
4. Identify the structures of that facial bones that are visualized in sectional imaging. (F01, F02)
5. Identify the paranasal sinuses that make up the cranium. (F01, F02)
6. Identify the bony and soft tissue structures of that orbit. (F01, F02)
7. Define key terms relating to the skull, facial bones, and sinuses. (F01, F02)

Chapter 3 – Brain

After completion of this unit, the student will be able to:

1. Describe the major structures that compose the brain. (F01, F02)
2. Differentiate between the meninges. (F01, F02)

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3. Describe the ventricular system of the brain, the structures of the cerebrum, cerebral lobes, basal ganglia, the brainstem, and cerebellum. (F01, F02)
4. Describe the cerebral vascular system. (F01, F02)
5. Identify the structures of the brain on sectional images. (F01, F02)

Chapter 4 – The Spine

After completion of this unit, the student will be able to:

1. Describe the appearance of typical vertebrae. (F01, F02)
2. Identify structures of the vertebrae on sectional images. ((F01, F02)
3. List the important ligaments and muscles of the human spine. (F01, F02)
4. Describe the structures of the spinal cord. (F01, F02)
5. Identify the vascular structures that supply and drain the spine. (F01, F02)

Chapter 5 – The Neck

After completion of this unit, the student will be able to:

1. Describe the major organs and significant muscles of the neck. (F01, F02)
2. List the major vascular structures located in the neck. (F01, F02)
3. Identify the major organs, structures, and vessels of the neck on section images. (F01, F02)

Chapter 6 – The Thorax

After completion of this unit, the student will be able to:

1. Describe the structures that makeup the bony thorax. (F01, F02)
2. Discuss the importance of the bony thorax. (F01, F02)
3. List and localize the great vessels within the bony thorax. (F01, F02)
4. Discuss the coronary circulation and identify coronary vessels on sectional images. (F01, F02)
5. Describe the major muscles associated with respiration. (F01, F02)

Chapter 7 – The Abdomen

After completion of this unit, the student will be able to:

1. Describe the structures and organs located in the abdominal cavity. (F01, F02)
2. Describe the surface and segmental anatomy, and the vasculature of the liver. (F01, F02)
3. Describe the biliary system. (F01, F02)
4. Identify the spleen, adrenal glands, and pancreas on sectional images. (F01, F02)
5. List the organs that make up the gastrointestinal system. (F01, F02)
6. Identify the abdominal aorta, its branches, and the inferior vena cava and its tributaries on sectional images and diagrams. (F01, F02)

Chapter 8 – The Pelvis

After completion of this unit, the student will be able to:

1. Define the structures of the bony pelvis. (F01, F02)
2. Describe the major muscle groups of the pelvis. (F01, F02)
3. Identify organs of the male and female pelvis on sectional images. (F01, F02)

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4. List the vasculature of the male and female pelvis. (F01, F02)

SCANS

Secretary's Commission on Achieving Necessary Skills

SCANS is an attempt to help make courses more relevant to the needs of a modern work force. SCANS is divided into two types of skills: competencies and foundations. Foundation skills are organized into the basic literacy and computational skills, the thinking skills necessary to put knowledge to work, and the personal qualities that make workers dedicated and trustworthy. The competencies are the abilities to manage resources, to work amicably and productively with others, to acquire and use information, to master complex systems, and to work with a variety of technologies. Both are required for successful performance in most jobs, and are definitely required for professions in the radiologic technology field.

Course Outline or Schedule:

Below is a tentative course schedule. The Instructor reserves the right to deviate from this schedule will make every effort to provide advanced notification to the student.

| Date | Topic | Assignment |
|----------------|---|---|
| March 17, 2020 | Ch 1 Introduction to course, review of syllabus. Introduction to Sectional Anatomy. | Read Chapter 1 and 2 in Kelley textbook by class time |
| | Ch 2 The Cranium & Facial Bones | Complete Bb Assignments Chapter 1 and 2 |
| March 24, 2020 | Cont-Ch. 2 Cranium & Facial Bones Begin – Ch. 3 The Brain | |
| | | Assignments: Read the Shaken Baby Syndrome Article and complete discussion board "Traumatic Brain Injuries" Complete Ch 3 Bb Assignment |
| March 31, 2020 | Ch 3 The Brain Begin - Ch 4 The Spine | Read Chapter 3 In Kelley textbook. |
| | | Bb Exam 1 – Chapters 1-3 |
| April 7, 2020 | Ch 4 The Spine Begin - Ch 5 The Neck | Read Chapter 4 and 5 in Kelley textbook. |

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| April 14, 2020 | Ch 6 The Thorax | Read Chapter 6 in Kelley textbook. |
| | | Complete Ch 6 Bb Assignment Exam 2 (Chapters 4-6) |
| April 21, 2020 | Ch 7 The Abdomen | Read Chapter 7 in Kelley textbook. |
| | | |
| April 28, 2020 | Ch 8 The Pelvis | Read Chapter 8 in Kelley textbook. |
| | | Bb Exam 3 (Chapters 7 & 8) |
| May 5, 2020 | Final Exam | Final exam due on Bb by 5pm |
| | | (Refer to the course syllabus for the exemption policy) |
| | | |

Course Grading Information:

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

| <u>TASK</u> | <u>PERCENTAGE OF COURSE GRADE</u> |
|----------------------------------|-----------------------------------|
| 1. Assignments and quizzes..... | 30% |
| 2. Major tests..... | 40% |
| 3. Comprehensive final exam..... | 30% |
| | 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 | |

Course Grading Information:

All course grades will be applied to the following scale and will be rounded up to the nearest whole number according to the tenth place after the decimal, when greater than or equal to .5 or above.

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Examples: 93.4 = 93, 93.5 = 94, or 93.6 = 94 and so on.

Should you have any questions regarding the rounding of grades please contact your instructor.

Late Work, Attendance, and Make Up Work Policies:

Make Up Work

Student will be permitted to make up class work assignments due to absence, caused by:

1. *Personal illness WITH VERIFICATION FROM YOU DOCTOR*
2. *Death in the immediate family (mother, father, brother, sister, or a child of oneself).*

The instructor has the prerogative of determining if a student may make up work missed due to absence for other reasons. It is the student's responsibility to inform the instructor of the reason for an absence and to do so in a timely fashion.

Late assignments will be given a 10 point deduction on the first day missed and five points everyday thereafter. This is only accountable on business days. In-class pop quizzes cannot be made up; a grade of zero will be recorded for any missed in-class quiz.

Grading

Grades for each exam are posted on Brightspace for students to view. Students are required to report to the instructor any incorrect posting within two days of taking an exam. Failure of students to check their grades in order to report any incorrect posting and failure to report this to the instructor will result in grades remaining as posted on Brightspace.

Minimum Grade 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 course material and competencies to be successful.

Therefore, the minimum grade expectation of all coursework and assessments in this course is to achieve 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 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

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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

Exemption from the Final Exam:

Upon the completion of the last chapter exam and assignments, any student that meets the following THREE requirements will be EXEMPT from the comprehensive final exam. There will be no exceptions to this policy; all 3 items listed below must be met. However, any qualifying student can opt to take the final exam as a personal assessment of their knowledge level and not have it count in their final average. Student must notify the instructor of their intentions prior to the test date.

- 1) An "A" (90-100) average***
- 2) No more than ONE unexcused absence***
- 3) No previously missed major unit/chapter tests***

Attendance

Tardiness is defined by the instructor of this class as any time past the originally scheduled time class is to begin.

At 9:00 am, class has officially begun and a student is considered late if arrival is any time after that. Habitual tardiness indicates a lack of discipline and will be dealt with on an individual basis. The doors to the classroom will be locked at 9:00am and the student will be denied access until the first break of the class which is usually at 50 minutes after the beginning of class.

Students will be allowed to take a brief break at approximately 50 minute intervals. A break is designed to allow the student restroom facility time as well as technology breaks to check cell phones/messages, etc. Leaving while class is in session can be disruptive to others. Students may leave but need to understand that the classroom doors are locked and will remain locked and no re-entry will be allowed until the next break or class has officially ended. 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 considerations need to be discussed with the instructor.

Missing any portion of class at any time is considered an absence for the entire class period.

****Only extreme circumstances will be considered for an excused absence and is at the discretion of the course instructor.***

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Regular and punctual attendance is expected of all students, and a complete record of attendance will be kept by each instructor for the entire length of each course. 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.

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 absence will count toward the 25 percent limitation (Please refer to the “MCC Attendance Policy” section below).

It is the student's responsibility and a common courtesy to inform the instructor of an absence and to do so in a timely fashion.

Brightspace Use and Activity

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

E-mail correspondence

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

Examinations

Random pop quizzes, unit exams and a comprehensive final will be given. Make up tests are not given in this course. If a unit exam is missed, the comprehensive final grade will be used for the missing exam grade. This will be done only once per semester. (Exception: See ‘Online Quizzes and Testing Policy’ below). Subsequent missed exams will receive a grade of zero. If an in-class pop quiz is missed for an unexcused absence, the student will receive a grade of zero.

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Online Quizzes and Testing Policy

Some chapter tests and/or quizzes may be posted on Brightspace and will be timed according to length and content. Adequate time will be provided to complete the test provided the student has studied the material prior to taking the test. There will not be sufficient time to “look up” each test question searching for the answer. 5 points will be deducted for every minute that a student goes over the allotted testing time.

If a student fails to take the Brightspace test or quiz during the allotted time frame, a zero will be given with no opportunity to re-take the test. This only applies to tests or quizzes that are not begun and completed during the time frame. If a technology glitch occurs, the student is to contact the instructor immediately to report the issue. The instructor will investigate the issue and has the option to re-set the test or quiz. If “glitches” continue to be a recurring problem, the student will be required to test at the Testing Center.

Respondus Lockdown Browser Use

The instructor may choose to require Respondus Lockdown Browser to be used when taking Brightspace exams. The browser must be downloaded prior to taking an exam.

[Download Respondus Browser \(Click Here\)](#)

When using Respondus Lockdown Browser to complete exams, the student must follow these rules:

- Student will read and follow all instructions of Respondus prior to beginning the exam.
- The student will use a flat surface such as a desk or table and a chair. The student must remain sitting throughout the length of the exam.
- When performing the environment scan, it must be done slowly to include a 360 degree view of the room and the entire surface where the computer is located.
- The student will be in view of the camera throughout the exam and allow recording of sound throughout the exam.
- All problems will be communicated to the instructor during the exam and an email with explanation should follow after the completion of the exam.
- Students should always strive to look at the monitor. Any eye movement that indicates cheating may result in the student retaking the exam in person. Should cheating be found, the student will receive a zero and risk being removed from the program.
- Do not wear caps, hats or other head coverings that will cast a shadow onto your face
- Do not take exam in a dark room. Avoid backlighting situations, such as sitting with your back to a window. Always have light in front of your face, not behind your head.
- Choose an environment that is distraction-free. This includes people, television, animals, or any other item that will draw your eyes away from the monitor.
- Do not take exam with laptop computer in your lap. Instead, place it on a flat surface. Be careful not to move the laptop during the exam. This may result in lack of face detection.

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Respondus is used as a tool to allow schedule flexibility. The instructor may remove Respondus testing privileges if the student does not comply with the rules.

Cheating

Cheating is a serious offense. A student found cheating will receive a zero for the exam grade and will be required to attend a conference with the instructor and the program director.

Student Behavioral Expectations or Conduct Policy:

Classroom Behavior

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.

[Electronic Devices](#)

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 Brightspace, 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.

***Students may only tape record or video class activities and instructors with 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 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.*

Due Process

If a student has a grievance or complaint, it is expected that the student would start by discussing the issue with the specific instructor first. For more information regarding the due process policies of the College, please refer to the Highlander's Guide.

MCC Academic Integrity Statement:

The Center for Academic Integrity defines academic integrity as “a commitment, even in the face of adversity, to five fundamental values: honesty, trust, fairness, respect, and responsibility.

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From these values flow principles of behavior that enable academic communities to translate ideals into action.” Individual faculty members determine their class policies and behavioral expectations for students. Students who commit violations of academic integrity should expect serious consequences. .

* [Click Here for the MCC Academic Integrity Statement](http://www.mclennan.edu/academic-integrity)
(www.mclennan.edu/academic-integrity)

The link above will provide you with information about academic integrity, dishonesty, and cheating.

MCC Attendance Policy:

Regular and punctual attendance is expected of all students, and each instructor will maintain a complete record of attendance for the entire length of each course, including online and hybrid courses. 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.

* [Click Here for the MCC Attendance/Absences Policy](http://www.mclennan.edu/highlander-guide/policies)
(<http://www.mclennan.edu/highlander-guide/policies>)

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

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.

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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, we encourage you to contact a success coach by calling (254) 299-8226. Students can visit the Completion Center Monday-Friday from 8:00 a.m.-5:00 p.m. to meet with a success coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) is open 12:00 p.m.-1:00 p.m., Monday-Friday, without an appointment. The Completion Center and pantry are located on the Second Floor of the Student Services Center (SSC).

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 contacted/notified through 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.

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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. Instructors should not provide accommodations unless approved by the Accommodations Coordinator. For additional information, please visit 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 (Vice President for Student Success) at 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC by calling 299-8210. The MCC Student Counseling Center is a confidential resource for students.

McLennan's Title IX webpage (<http://www.mclennan.edu/titleix/>) 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.

* **[Click Here for more information about Title IX](http://www.mclennan.edu/titleix/)**
(www.mclennan.edu/titleix)

* *You will need to access each link separately through your Web browser (for example: Internet Explorer, Mozilla, Chrome, or Safari) to print each link's information.*