Sonographic Sectional Anatomy (DMSO 1351)

Credit: 3 semester credit hours (2 hours lecture, 2 hours lab)

Course Description

Sectional anatomy of the male and female body. Includes anatomical relationships of organs, vascular structures, and body planes and quadrants.

Prerequisite: Admission to the Diagnostic Medical Sonography Program

Co-requisite: DMSO 1110

Required Textbook and Materials

1. Sectional Anatomy for Imaging Professionals; 2nd Ed., Kelley and Peterson, textbook and E-book Package; ISBN: 978-0-323-06144-5
2. Flash drive
3. Color pencils

Course Objectives:

Upon completion of this course student will be able to:

1. Describe anatomical relationships (Scan C5.5, C6.5, C7.5, F1.5, F2.5, F5.5, F10.5, F11.5)
2. Identify organs and structures of the body in sectional planes (Scan F1.5, F2.5, F5.5, F10.5, F11.5)
3. Identify anatomical structures in standard and non-standard imaging planes (Scan C5.5, C6.5, C7.5, C8.5, F1.5, F2.5, F6.5, F10.5, f11.5

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools.* In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

Course Outline

I. **Introduction to Sectional Anatomy**
   - A. Body Planes
   - B. Regions
   - C. Body Cavities and Spaces

II. **Cranium**
   - A. Anatomical Structures
     - i. Parietal bone
     - ii. Frontal bone
     - iii. Occipital bone
     - iv. Temporal bone
   - B. Sutures
   - C. Fontenels

III. **Facial Bones**
   - A. Nasal bones
   - B. Maxilla

C. Mandible
D. Palatine bone

IV. **Brain**
A. Meninges
B. Ventricular System
C. Cerebrum
D. Diencephalon
E. Limbic System
F. Brain Stem
G. Cerebrum
H. Cerebral Vascular System

V. **Spine**
A. Vertebra Column
B. Muscles
C. Spinal Cord

VI. **Neck**
A. Organs
B. Muscles
C. Vascular Structures

VII. **Thorax**
A. Bony Thorax
B. Lungs
C. Pleural Cavities
D. Bronchi
E. Mediastinum
F. Lymphatic System
G. Heart and Vasculature
H. Great Vessels
I. Coronary Circulation
J. Azygos Venous System
K. Muscles
L. Breast

VIII. **Abdomen**
A. Abdominal Cavity
B. Viscera (Organs)
C. Arterial and Venous Vasculature
D. Lymph Nodes
E. Muscles of Abdominal Wall

IX. **Pelvis**
A. Bony Structures
B. Muscles
C. Viscera (Organs)
D. Vasculature
E. Lymph Nodes

X. **Upper Extremity**
A. Bony Structures
B. Vasculature
C. Muscles and Ligaments
D. Lower Extremity
E. Bony Structures
F. Vasculature
G. Muscles and Ligaments

XI. **Lower Extremity**
A. Hip
B. Knee and lower leg
C. Ankle and foot
D. Vasculature

Grade Scale

93-100	A
85-92	B
75-84	C
70-74	D
73.5	F

Course Evaluation

1. Homework 10%
2. Poster Project 10%
3. Unit Exams 30%
4. Final Exam 50%

Students must maintain a 75% overall exam average and must receive a 75% on final exam to pass this course.

Course Requirements

1. Reading assignments
2. Web Searches
3. Poster
4. Exams

Course Policies

General:

1. Students must provide their own textbooks, writing instruments, and other necessary supplies for classes.
2. Pagers, cell phones, and any other electronic devices must be turned off during class.
3. No food or drinks will be allowed in the classroom.
4. Students must respect one another and all faculty.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator, at (409) 880-1737 or visit the office located in the Cecil Beeson Building.

Course Schedule

Week	Topic	Required Reading
Week 1	Introduction to Sectional Anatomy	Chap 1
	Exam 1	
Week 2	Cranium, Facial Bones	Chap 2
	Brain	Chap 3
Week 3	**Exam 2**	
Week 4	Spine and Neck	Chap 4-5
	Exam 3	
Week 5	Thorax	Chap 6
Week 6	**Exam 4**	
	Abdomen	Chap 7
Week 7	**Exam 5**	
Week 8	Pelvis	Chap 8
Week 9	**Exam 6**	
Week 10	Upper Extremity	Chap 9

	Lower Extremity	Chap 10
Week 11	**Exam 7**	
Week 12	**Final Exam**	

Contact Information:

Instructor: Sheila Trahan
Office: MPC 220
Telephone: 409 839-2937
E-mail: sheila.trahan@lit.edu
Office Hours: by Appointment