

Instructor Contact Information

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Scan or photograph proctor applications and attach to email

Course Overview

Course title: Cross Sectional Anatomy II
Course number: BIO 375
Course description: Survey of cross sectional images of the shoulder, elbow, wrist, hip, knee, ankle and spines as demonstrated by the modality of magnetic resonance (MR).
Course dates: Offered four terms a year. Current term dates are posted on the *Dashboard*.
Prerequisite(s): Although Degree Completion students are not held to prerequisites for core (radiologic science) courses, a strong background in anatomy (BIO 231, 232, 233) is highly recommended before taking this course.

Course Objectives

At the end of this course, the student should be prepared to:

- Identify cross sectional anatomy from the head through the pelvis as demonstrated by CT and MRI
- Correlate traditional anatomical drawings to counterpart cross sectional images

Textbook or Resources

The textbook for this course is the *Atlas of Human Anatomy* by Frank H. Netter, M.D. Any edition will do. Newer editions are available through the Paper Owl Bookstore at <http://bookstore.oit.edu/>.

Using the Atlas of Human Anatomy

Using this Resource:

This course has been designed for study on two levels. First, a student may simply study the images, and learn to recognize the anatomy by its shape and position. That will foster a basic understanding of sectional anatomy, and provide a foundation for further learning.

The second level of study will provide the same foundation of basic knowledge, but will also allow a student to review, consolidate, and expand his or her knowledge of human anatomy to any extent desired. This is done by correlating the images in Netter's *Atlas of Human Anatomy* with the cross sectional images in the course.

I've had a fascination with Netter's medical illustrations from the first time I opened one of his books as a student. The intricate detail of his drawings can lead to hours of contemplation: comparing the relationship of organs, vessels, nerves, bones and muscles, as they are progressively revealed from one dissection level to the next. For this reason I chose Netter's illustrations instead of a cross sectional text, as one might expect in a cross sectional course. In my opinion, to truly appreciate why structures in cross section appear as they do, one must have a thorough understanding of how the volume of the body results in its cross sectional appearance.

Imaging technologists already have a thorough knowledge of anatomy, therefore students enrolled in this course should be prepared to use Netter's illustrations to delve as deeply as necessary to satisfy the unique needs of each individual.

Every few years a new edition of the Atlas comes out but there have been very few changes. Frank Netter is long gone and his work is not edited. Page numbers are moved around, usually by no more than two or three pages and a new artist has added a few cross sectional plates over the past few editions. If you have an older edition, even the first, there is no need to get a new one. If you do not have a copy and you are okay with a used one, any edition is fine and you can get them at much less expense. There are page number references through the 6th edition, but not the latest 7th. There are other fine text of anatomical drawings and you have another favorite that will suffice. There are no test questions that rely solely on Netter to answer.

Displaying the Images Online

Using the Site

Effectively:

Format of
Images:

When viewing the slide show a track ball works well to move forward and backwards. Arrow keys are good too. Be sure to select "full screen" in order to get the best view of the images. For the cross sectional images, keyed images are typically displayed two at a time followed by four images without keys (legends), followed by the remaining two images with keys in that group of four, (it will make sense when you see it). On the images with keys is the word "reference" followed by an arrow directing you to the "reference" page which is the screen of four images without keys. The reference pages provide:

- * multiple images for continuity of contiguous sections
- * an opportunity for review and self testing
- * an unobstructed view to find anatomical structures which were labeled on adjacent images, for the purpose of following the volume of a specific part as it passes through the cross sections.

The unique feature of this format is that the reference images are positioned on the screen in exactly the same place as the images with keys. By focusing your eyes on an anatomical part of a keyed image the numbers and arrows will (magically) disappear when the reference image is called up, and reappear when returning to the keyed images. It is the electronic equivalent of the overlay illustrations found in more expensive texts of yesteryear.

Most anatomical parts of keyed images are indicated by arrows, but some are numbered within circles. Circled numbers indicate the whole of a part that might be misinterpreted as something more specific if shown by arrows.

There may be times when you feel that the position of the arrow does not isolate the part listed on the key as well as it could. If, however, you feel it is a misleading representation and not a mistake, appreciate it for what it conveys, and rest assured that you will not be penalized on a test if you can make a reasonable case for your answer. I appreciate e-mails with your suggestions, and make improvements accordingly.

Unit Tests

All tests are found under the "Assessments" link in the "Course Tools" menu to the left

BIO 335 Proctored Test Instructions

Testing for this distance course must be proctored to insure the security of the tests. Proctors may be a supervisor, staff of a hospital education center, a proctor at a local school or college

that has a testing center, or a librarian.

A proctor must be a person who:

1. is a manager, supervisor, technologist, or
2. is not a technologist but is also not related to or a personal friend of the student.

If there are questions about a proctor's eligibility contact the instructor before paying for the online service. Proctors are approved after the student sends the completed proctor application form back to the instructor.

The application form is printed from the first link in the course content.

The function of the proctor is to provide the student with the password for the test at the time the test is to be taken and monitor the student while the test is being taken. Any deviation from this procedure could compromise the security of the test, and be deemed as cheating. Cheating will result in immediate failure of the course.

Tests are corrected on line when students submit them. Because tests are corrected by matching answers with possibilities entered in a database, and because the format is short answer, there will be many instances when correct answers will be marked incorrect. After you take a test it will be rescored, usually by the next working day. A message will be sent notifying you of its completion. The corrected score will usually be considerably higher. You may then reopen the test and review the changes. Feel free to message the instructor with questions.

Summary of Steps for Taking a Proctored Test

1. An eligible proctor and site is found.
2. The application for the proctor and facility is sent to the instructor.
3. The instructor will contact the proctor and provide the test passwords.
4. When ready to take a test the student and proctor will

meet at the test site. The student will enter the test from Blackboard, and the proctor will supply the password for the test, and only for the test, to be taken. If there is a problem accessing the site, the test must be postponed.

Proctor Application Form

The first step to get started is to find a proctor and mail the application form. Until the proctor receives the passwords tests cannot be taken. As a reminder to those who tend to procrastinate the link to the proctor application form has been placed on the content page just before the link to Unit 1.

Course Schedule

Due Date Policy

To accommodate the needs of working adults with families there are no penalties for late work. You work and test at your own pace. The following schedule will keep you on track, to finish comfortably in the 10 week term. (There are actually 11 weeks with finals week, so this schedule has a one week buffer.)

The number in parenthesis indicates (from my experience) the level of difficulty of each unit. 1 is the easiest, 4 is the most difficult. The head unit has the most images and will take the longest. The neck will be the shortest.

Week	Course Work
1	Send proctor form, Start unit on abdomen (3)
2	Take abdomen test by Friday
3	Start unit on pelvis (2)
4	Take Pelvis test by Friday
5	Start unit on Thorax (4)
6	Take thorax test by Friday
7	Start unit on neck (1)
8	Take neck test by Friday (or sooner if able)
9	Start unit on head (4)
10	Take head test by Friday.
11	Week 11 is breathing room to finish tests if

	needed.
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Assignment/Test Point Values

Maximum earned points:

Assignment Number	Assignment Description	Points
Practice	Sample Test	0
2	Unit 1: Abdomen	80
3	Unit 2: Pelvis	80
4	Unit 3: Thorax	80
5	Unit 4: Neck	80
6	Unit 5: Head	100
Total		420

Grading Policy

93%-100% = A

85%- 92% = B

76% - 84% = C

70% - 75% = D

< 70% = F

Disability Accommodation

If you need an academic adjustment or special assistance because of a disability, please contact the Director of Campus Access by phone at (541) 885-1031.

Academic Integrity at OIT

Students are expected to demonstrate their knowledge with honesty and integrity. OIT considers academic dishonesty to be an unacceptable practice. The complete OIT Student Academic Integrity Policy is available on the OIT web site.