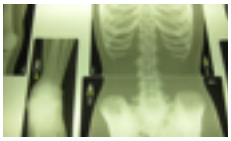
THIS WEEK IN BI 103

TUESDAY LECTURE



Skeletal System
General system functions, bone structure, disorders, and exercise.

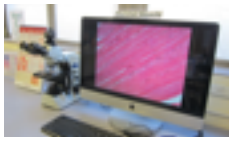
THURSDAY LECTURE

Muscular System
Muscle structure, interactions with the skeletal system, and exercise.

RECITATION

Skeletal Structures
Basic bone anatomy and the most likely human skeletal disorders.

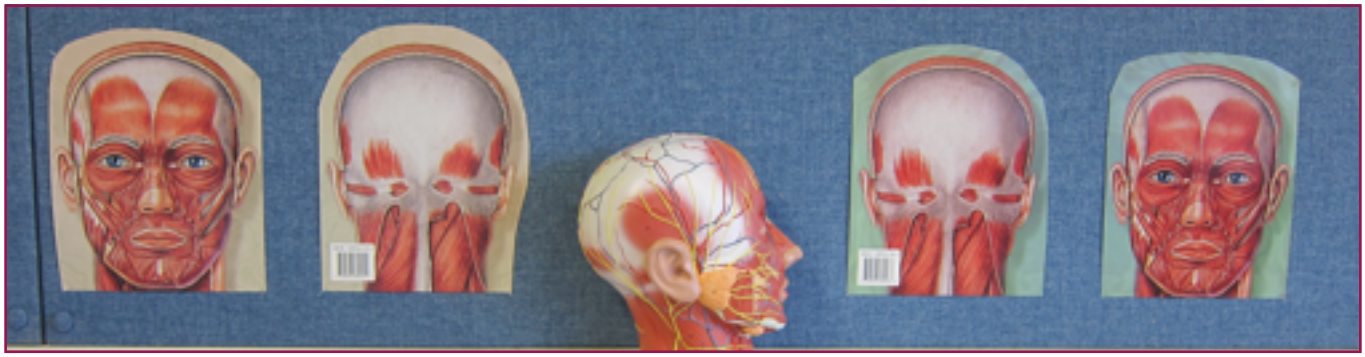
LABORATORY



Muscles and Organ Systems
An overview of organ systems and focus on muscles.

TEXTBOOK READINGS

p. 60 - 95 & 316-329
Basic anatomy and physiology, followed by disorders.



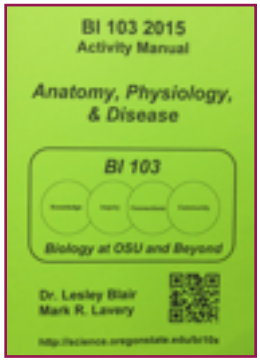
Work Ahead Systems Overview

Read p. 60-95 in the *Human Body* and answer the following questions.

The circular shaped units that make up bones are called _____ (p. 73)

The growth area of a bone is called the _____ (p. 74)

Briefly summarize the steps of bone repair (p. 75).



Bring your activity manual to lab and recitation this week.

Work Ahead System Disorders

Read p. 316-329 in the *Human Body* and answer the following questions.

How does osteoporotic bone differ from "normal" bone? (p. 318)

Why would a prolapsed disc cause pain? (p. 321)

How does rheumatoid arthritis differ from osteoarthritis? (p. 323-325).

Which structures link muscle to bone? _____ (p. 90-91)

In carpal tunnel syndrome, pressure is placed on the _____ (p. 327)

Work Ahead for Recitation

Read over "*Skeletal Structures*" (this is posted on the bottom of the main page of the BI 103 website) and answer the following questions.

Using your *Human Body* book, try labeling the photo in question #1, p. 29.

Last week in lab, you had microscope slides of fat, loose, and dense connective tissues, this week we are adding on two more connective tissues, _____ and _____ (question #3, p. 31)

Using your *Human Body* book, label the arm and hand photo in question #1, p. 33.

Read over the portfolio assignment for this recitation (p. 35). You can start these five brief paragraphs now, using information in the *Human Body* book readings for the eek and be ahead on your portfolio which is due next Monday.

A knee is an example of a _____ joint.

Answer: p. 78, Human Body

Study Hint: *Use the Objectives in Appendix A of the activity manual (p. 165+) to organize your studying. They are also posted at the course website.*

Work Ahead for Laboratory

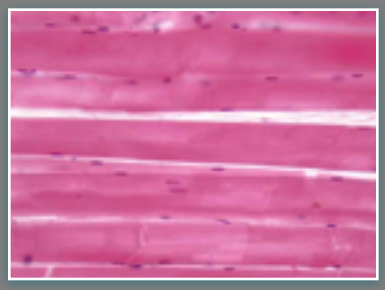
Read over "*Muscles and Organ Systems*" (this is also posted on the bottom of the main page of the BI 103 website).

The three types of muscle tissues are _____, _____, and _____

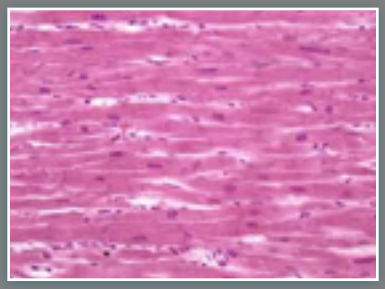
Tendons and ligaments, like those found in the knee, are made up of dense connective tissue , which is largely collagen fibers. From the skin lecture last Thursday, which cells produce collagen? _____

Portfolio #1 is due next Monday, April 13. You can check your four portfolio assignments to make sure they are complete by reviewing the requirements (Activity Manual, Appendix B, p. 175)

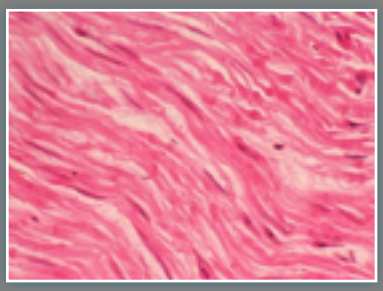
Muscle Tissues



Skeletal Muscle: Cells of the skeletal muscles have striations ("stripes") and multiple dark-staining nuclei in each cell. In this photo, seven cells are running from left to right.



Cardiac Muscle: Cells of the heart are long, branched, and connected by intercalated discs.



Smooth Muscle: These cells, in tissues surrounding organs like the stomach, lie side by side in a wave-like pattern.