Lab 5: Urogenital & Skeletal-Muscular Systems

I. URINARY SYSTEM

GOALS
You should be able to…..
✱   **Describe the role of kidneys in the urinary system.**
✱   **Identify the parts of a sheep kidney.**
✱   **Locate and state the functions of the urinary system of organs of the fetal pig.**
✱   **Trace the path of urine from its formation to its removal from the body.**
✱   **Compare and contrast the urinary systems/path of urine in males and females.**

Sheep Kidney
☐   p. 222: Read & use diagram to locate the following parts
- renal cortex
- renal medulla
- renal pelvis
- renal vein & renal artery
- ureter

Fetal Pig
☐   p. 109-201: Read & become familiar with diagrams. *NOTE: We will not cut open kidneys.*
☐   Locate the following structures on both male & female pigs:
- kidneys
- ureter
- urinary bladder
- urethra

II. REPRODUCTIVE SYSTEM

GOALS
You should be able to….
✱   **Locate and state the functions of male & female reproductive organs in the fetal pigs.**
✱   **Trace the path of sperm from production to ejaculation.**

☐   p. 202-206: Read introductions/use diagrams to locate & identify functions for the following:

MALE:
- testes (sing. testis)
- epididymides (sing. epidiymis)
- vasa deferentia (sing. vas deferens)
- urethra
- bulbourethral glands
- penis
- urogential opening

FEMALE:
- ovaries
- oviducts
- uterine horns
- uterine body
- vagina

☐   **REVIEW: p. 214 #1-14, 17, 18**

III. MUSCULOSKELTAL SYSTEM

GOALS
You should be able to…..
* ✴ **Locate and identify the functions of the tissues that make up a long bone.**
* ✴ **Locate and identify the bones of a human skeleton.**
* ✴ **Locate and identify selected muscles.**
* ✴ **Give examples of antagonistic pairs of muscles.**

KEY TERMS:

* origin
* insertion
* action of the muscle
* antagonistic pairs
* tendon

* flexion
* extension
* adduction
* abduction

Introduction
□ p. 249: READ introduction and view Fig. 19.1

Long Bone
□ p. 250-251: Use cow femur, diagram, & reading to locate and identify functions for:
* periosteum
* medullary cavity
* compact bone

* yellow bone marrow
* spongy bone
* red bone marrow

You will not be able to see red marrow on the cow femur, but may have noticed it when you cut through the pelvic bone on your fetal pigs.

Human Skeleton
□ p. 254-255: Use articulated skeleton, diagram, & procedure to identify:
* skull
* clavicle
* scapula
* sternum
* ribs
* humerus
* radius
* ulna
* carpals
* metacarpals
* phalanges

* pelvis
* femur
* patella
* tibia
* fibula
* tarsals
* metatarsals
* phalanges
* vertebral column
* sacrum
* coccyx

You already know more of these than you think – focus on the bones you are unfamiliar with!

Skeletal Muscles (Muscle Man)
□ p. 255-257: Use muscle model, diagram, and reading to locate & identify functions of:
* Pectoralis major
* Biceps brachii
* Quadriceps femoris group
* Tibialis anterior
* Trapezius

* Deltoid
* Triceps brachii
* Hamstring group
* Gastrocnemius
* Gluteus maximus

□ p. 258 & C61: Use reading/diagrams on p. 258 to help you fill out chart on p. C61.

□ **REVIEW:** p. 262 #2, 4, 5, 7, 8, 12, 13, 15

LAB PRACTICAL REVIEW
Use any remaining time to review organs of neck, thoracic cavity, abdominal cavity, heart & blood vessels.

Be sure to attend an open lab review session this week. Scheduled times are:
Monday 3-6 in Bowers 259 with Cathy Catranis
Tuesday 7-9 in Bowers 259 with Lisa Gugerty
Wednesday 3-6 in Bowers 260 with Stephen Campbell
Thursday 3-6 in Bowers 260 with Anna Spaulding

Your lab practical is on Monday, March 3. Remember, there are no make-ups for missed lab quizzes or practical exams!!! Do not miss class on Monday! Also, no late admittance to lab will be permitted due to the nature of the exam. I recommend you bring several pencils with you; pen is fine if you do not think you will need to erase any answers.

Finally, remember to use the biology lab page to practice for the exam. Again, the internet address is: web.cortland.edu/biolab. Click on Bio 111, then on Practical #1. You should take this several times, as only 20 out of 100 questions will come up each time.