

Name _____

Sec _____

ANT 3514 Introduction to Biological Anthropology

Lab 4 Human Skeleton

Week of 02/06/06

Note:

1. **Handle the bones with extreme care and respect.**
2. Some of the following questions may require you to refer to your textbook or an osteological website.

STATION 1: Skull

The skull (cranium and mandible) plays an important role in biological anthropology in terms of determining age, sex, ancestry, and understanding evolution history.

Name the bones/suture marked with dots. (No order required for the bones)

1. _____ suture
2. _____ bone
3. _____ bone
4. _____ bone
5. _____ bone

STATION 2: Dentition

Teeth are one of the best preserved elements of skeletal remains. Their morphology is useful in constructing phylogenetic relationships among extinct and extant organisms.

Examine the dental casts provided and answer the following questions.

1. What are the four tooth types of human?
2. What is the dental formula of human?

STATION 3: Pelvis

Human pelvis is composed of three bones: the os coxae (right and left), sacrum, and coccyx. The pelvis serves to protect and support abdominal organs, and anchor abdominal and leg muscles. It is an area that provides critical information on locomotion patterns and sex determination.

There are two human pelvises (A and B) in this station. Refer to the comparative graphs provided here, answer the following questions.

1. Which sex does pelvis A represent? Briefly state your reasons.
2. Name the bone marked with blue dot.

STATION 4: Thorax

The thorax, or chest, is a cage-like structure that serves to protect vital organs and assist breathing. Its shape and orientation are important traits in human evolution.

1. What is the bone in the tray? _____
2. Observe the articulated skeletons near this station, how many pairs of this bone are on a human skeleton? _____
3. What does this bone attach to on the back of the body? _____

STATION 5: Upper limb

Observe the provided specimen and the articulated skeleton near this station when answering these questions.

1. Which bone of the lower arm is on the same side as your pinkie? _____
2. Which bone of the lower arm is on the same side as your thumb? _____
3. What is the other bone that is a part of the elbow joint? _____

STATION 6: Lower limb

Lower limbs are directly associated with locomotion. The bones in this area are responsible of bearing and transporting body weight during locomotion.

Refer to the diagram provided and the articulated skeleton near this station and answer the following questions.

1. What are the three bones that form the knee joint?
2. Name the two landmarks marked with dots on the femur and os coxa.

STATION 7: Human vs. nonhuman

Refer to your book or the anatomical specimens in this classroom and answer the following questions.

1. Which one belongs to a human in Tray A?
2. Which one belongs to a human in Tray B?

STATION 8: Types of Bone

Go to this website-- <http://medstat.med.utah.edu/kw/osteo/osteology/> Click on "The basics" and find out:

1. What are the four types of bone? _____, _____, _____, _____.
2. Give an example of each type. _____, _____, _____, _____.

STATION 9: Anthropometric Devices

Anthropometry refers to "the measurement of human body/skeleton".

Go to the above website. Click on "Anthropometric devices", and explore the functions of the first three devices.

Which one will you use if you want to measure the length of a femur?