

Bio 135 Lab: Bones lab one. Axial Skeleton:

- Objectives:
  - Learn the surface marking terminology
  - Apply this terminology to bony structures
  - Identify the bones of the axial skeleton and the related surface markings
  
- Pre-Lab activities:
  - Go to virtual lab and review materials on the Skeletal system.
  - Review the Axial bones study list at the end of this document. Learn these bones and markings by visually comparing them to images in your text and online.
  
- Related in lab activities:
  - Brief lecture on bones of the Axial Skeleton
    - Review slide of microscopic structure of bone and identify structures
  - Exercise
    - View the bones in class that are listed below. Learn to visually identify these bones. And related structures, on the virtual lab and the images in your text.
    - B able to identify the structures of the skull as listed.

## Bio 135

### Bones and Markings of the Axial Skeleton

#### The Skull

1. **Frontal bone**
2. **Parietal bone**
3. **Occipital bone**
  19. occipital condyles
  69. foramen magnum
4. **Temporal bone**
  5. mastoid process
  8. mandibular fossa
  9. styloid process
  30. zygomatic arch
  42. external auditory meatus
11. **Zygomatic bone**
12. **Nasal bone**
13. **Maxilla**
14. **Lacrimal bone**
15. **Ethmoid bone**
  58. crista galli
  59. cribriform plate
16. **Vomer**
17. **Palatine bone**
10. **Sphenoid bone**
  63. sella turcica
20. **Mandible**
  52. mental foramen
  21. coronoid process
  22. mandibular condyle

#### The Hyoid Bone

#### The Vertebral Column

##### Cervical vertebrae (7)

- body
- spinous process
- transverse process
- transverse foramen
- vertebral foramen

#### Atlas

#### Axis

- dens

##### Thoracic vertebrae (12)

- body
- spinous process
- transverse process
- vertebral foramen

##### Lumbar vertebrae (5)

- body
- spinous process
- transverse process
- vertebral foramen

##### Sacrum

- body
- sacral hiatus
- superior sacral canal
- sacral foramina

##### Coccyx

#### The Thoracic Cage

##### Sternum

- body
- manubrium
- clavicular notch
- jugular notch
- xiphoid process

##### Ribs

- true ribs** (7 pairs)
- false ribs** (5 pairs)
- floating ribs** (2 pairs)