Human Anatomy and Physiology- I

BIOL2401- **Lab Practical 2** Terminology

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| Lab 12: Structure & Classification of Bone |  |  |
| **Microscopic Structure** | **Sectioned Long Bone** |  |  |
| Osteon (Haversian) System |  | epiphysis |  periosteum |
|  | central (Haversian) canal |  | diaphysis |  Sharpey's fibers |
|  | perforating (Volkmann’s) canal |  | epiphyseal line (disk or plate) |  medullary cavity |
|  | osteocyte |  | compact (dense) bone |  | red marrow |
|  | lacuna |  | spongy (cancellous) bone |  | yellow marrow |
|  | canaliculi |  | hyaline (articulating) cartilage |  | endosteum |
|  | trabeculae |  |  |  |  |

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| Lab 13: Organization of the Skeleton |
|  Axial skeleton vs. Appendicular skeleton |
|  Differentiate between left and right |

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| **Lab 14: The Skull** |  |  |
| Cranium |  |  |  |  |  |
|  | Frontal bone | Temporal bone (2) | Sphenoid bone |
|  |  | frontal sinus |  | squamosal suture |  | sella turcica |
|  |  | supraorbital foramen |  | external acoustic meatus |  | sphenoid sinus |
|  |  |  |  | internal acoustic meatus |  | optic canal |
|  |  |  |  | mastoid process |  | lateral pterygoid plate |
|  | Parietal bone (2) |  | styloid process |  | medial pterygoid plate |
|  |  | sagittal suture |  | carotid canal |  |  |
|  |  | coronal suture |  | jugular foramen |  |  |
|  | Occipital bone |  |  |  |  |
|  |  | lambdoidal suture |  |  | Ethmoid bone |
|  |  | foramen magnum |  |  |  |  | crista galli |
|  |  | occipital condyles |  |  |  |  | cribriform plate |
|  |  |  |  |  |  |  | perpendicular plate |
|  | sutural bone |  |  |  |  | ethmoid sinus |
|  |  |  |  |  |  |  | nasal concha |
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| Facial bones |  |  |  |
|  | Maxillary bones | Inferior nasal concha |
|  |  | maxillary sinus | Mandible |  |
|  |  | palantine process |  | body |
|  |  | alveolar fossa\* |  | ramus |
|  |  |  |  | mandibular condyle |
|  | Palatine bone |  | coronoid process |
|  | Zygomatic bone |  | mental foramen |
|  |  |  |  | alveolar fossa\* |
|  |  | zygomatic arch |  |  |
|  | Lacrimal bone | Hyoid |  |
|  | Nasal bone |  |  |
|  | Vomer bone |  |

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| Lab 15: Vertebral Column & Thoracic Cage |
| Parts of vertebrae | Costal (rib) (12 pairs) |
|  body |  types |
|  spinous process |  true (vertebrosternal) 7 pair |
|  vertebral foramen |  false (vertebrochondral) 5 pair |
|  transverse process |  floating (vertebral) last 2 pair of 5 |
|  intervertebral disc |  intercostal space\* |
|  intervertebral foramen | Sternum |
|   |  manubrium |
|   |  sternal notch |
|  |  sternal angle |
| Cervical vertebrae (7) |  body |
|  transverse foramen |  xiphoid process |
|  bifid process |  |
|  Atlas (1st) |  |
|  Axis (2nd) |  |
|  dens (odontoid process) |  |
| Thoracic vertebrae (12) |  |
|  costal facets  |  |
| Lumbar vertebrae (5) |  |
| Sacrum (5 fused) |  |
|  sacral foramen |  |
|  articular surface (sacroiliac joint) |  |
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| Lab 16: Pectoral Girdle & Upper Limb |
| Pectoral Girdle | Upper Arm |  |  |  |  |
|  | clavicle  |  | Humerus | Ulna |
|  | scapula |  |  | head |  | trochlear notch |
|  |  | spine |  |  | neck |  |  |
|  |  | acromion process |  |  | deltoid tuberosity |  |  olecranon process |
|  |  | coracoid process |  |  | capitulum |  | coronoid process |
|  |  | glenoid cavity |  |  | trochlea |  | styloid process |
|  |  | supraspinous fossa |  |  | coronoid fossa |  | head |
|  |  | infraspinous fossa |  |  | olecranon fossa | Carpals (8) |
|  |  | subscapular fossa\* |  |  |  | Manus (hand) |
|  |  |  |  | Radius |  | metacarpals (1🡪5) |
|  |  |  |  |  | head |  | phalanges (1🡪5) |
|  |  |  |  |  | styloid process |  |  | proximal |
|  |  |  |  |  |  |  |  | medial |
|  |  |  |  |  |  |  | distal |
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| Lab 17: Pelvic Girdle & Lower Limb |  | patella |
| Coxal (hip) bone |  Femur head | Tibia | tarsals (7) |
|  ilium |  fovea capitis |  medial condyles |  talus |
|  iliac crest |  neck |  lateral condyles |  calcaneus |
|  iliac fossa |  gluteal tuberosity |  tibial tuberosity | metatarsals (15) |
|  greater sciatic notch |  medial condyle |  medial malleolus | phalanges (15) |
|  ischium |  lateral condyle |   |  proximal |
|  ischial tuberosity |  intercondylar fossa | Fibula |  medial |
|  ischial spine |  patellar surface |  head |  distal |
|  lesser sciatic notch |  |  lateral malleolus |   |
|  pubis |  Patella |  |  |
|  pubic symphysis |   |  |  |
|  acetabulum |  |  |  |
|  obturator foramen |  |  |  |
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**Know the difference between Male and Female pelvic girdles**