Anatomy & Physiology

Study Guide for Exam II- The more detail you use in your study guide, the better your study will be. However, if you run short on time, be sure to cover every part of the study guide at least briefly. One method to consider is to go through the whole thing once briefly describing each concept, then go back over it and study each (especially the ones you are struggling with) in more detail.

Integumentary System

1. Define/describe each of the following terms as completely as possible:
Serous membranes
Mucous membranes
Synovial membranes
Cutaneous membranes
Epidermis
Dermis
Subcutaneous layer
Dermal papillae
Epidermal ridges
Arrector pili
Hair
Follicle
Exocrine glands
Sweat glands-Merocrine, Apocrine & Specialized Apocrine glands (mammary and ceruminous)
Sebaceous glands
Ducts
Melanin/Melanocytes
Finger/Toenail
Nail bed
Cuticle
Nail body
Dermatitis
Rickets
Melanoma

2. Diagram the structure of the epidermis including the names and order of the five layers

3. Diagram the dermis, label as many structures as possible (you may copy or trace a picture or draw one yourself). Be sure you know all the structures.

4. Describe the functions of the integument: mainly with regards to immunity, water and temperature control, biochemistry, sensory perception.

5. Be able to identify the above structures on models and microscope slides

Skeletal System

1. Define/describe the following terms in as much detail as possible:
Osteocyte
Osteoclast
Osteoblast

Osteon
Central Canals
Lamellae
Hydroxyapatite
Cartilage
Collagen
Lacunae
Compact bone
Medullary cavity
Diaphysis
Epiphysis
Periosteum
Endosteum
Spongy bone
Trabeculae
Red marrow
Yellow marrow
Intamembranous Osteogenesis
Endochondral Osteogenesis
Epiphyseal disk/plate
Ligament
Synovial joints (give examples)
Cartilagenous joints (examples)
Fibrous joints (examples)
Movements: (be prepared to demonstrate on a model)
- Extension/Flexion/Hyperextension
- Adduction/Abduction
- Rotation
- Supination/Pronation
- Protraction/Retraction
- Eversion/Inversion
- Elevation/Depression

2. Organization of the Skeleton (list the bones of each division that you are responsible for learning and describe its location)
- Axial Skeleton
- Appendicular skeleton

3. Know the names and structures listed on the McKenna supplement page117

Muscular System

1. Describe each of the following terms in as much detail as possible:
Tendon
Muscle
Fascicle
Muscle Fiber
Perimysium
Epimysium
Myofibril
Filament

Myosin
Actin
Calcium ions
Creatine phosphate
ATP
Sarcomere
Z-lines
Transverse tubules
Motor end plate
Agonist
Synergist
Antagonist
Cardiac muscle
Skeletal muscle
Smooth muscle

2. Describe the process of mmuscle contraction from the release of neurotransmitter at the motor end plate to the relaxation of the muscle. Be as detailed as possible.

3. Be able to identify smooth, cadiac & skeletal muscle under the microscope

4. Know the names and functions of the muscles listed in the McKenna supplement pg. 119

Be sure to use your lecture notes and text book(s) as the primary source for studying the material presented in class.

Please expect the exam to include some multiple choice, short answer and laboratory practical questions.

Special Accommodations: If you need accommodations for the exam, you must submit a signed letter from the disability center describing the accommodations you require. Please give me at least a few days advance notice if you will require accommodations.

EXAMS CANNOT BE MADE-UP