Review Sheet for Muscles

- Know the importance of calcium, ATP, sodium, potassium in muscle physiology
- Know where ATP is generated for muscle physiology and which muscle fiber type benefits from each ATP source (aerobic, anaerobic, CP)
- Know the stages of sliding filament mechanism
- Know the events in excitation-contraction coupling
- What is curare and where does it target
- What is the neurotransmitter in somatic nervous system and how is it regulated (what stimulates it to be released and what destroys it)
- What makes the sarcolemma polarized and how can it be depolarized and repolarized
- What is refractory and latent periods
- What is the roles of myoglobin, sarcoplasmic reticulum, T-tubule
- What shortens during muscle contraction and what does not
- What is propagation, all or none philosophy, action potential
- What is oxygen debt, muscle fatigue, contracture, rigor mortis, tetanus
- Differentiate between myosin and actin, thick and thin myofilaments
- What is found in the myosin head group
- What is the role of troponin and tropomyosin and what are their structural composition
- Define a sarcomere and all that is found within it
- What is found in the A band and the I band
- What causes the striations in skeletal muscle fibers
- Compare and contrast the three muscle types (skeletal, smooth, cardiac)
- What is the synaptic cleft, axonal terminal, motor end plate
- What is a motor unit composed of
- Where is sodium and potassium found at
- What is the difference between a wave summation and recruitment of motor units
- Where are the different mechanisms that supply ATP in muscle physiology located within the cell and what are the end products for each