

**Checklist for Midterm #2  
Physiology 2130 2019-2020  
TA: Greydon Gilmore**

**Chapter 4 – Endocrinology**

- Adrenal gland structure, hormones produced
- Cortisol regulation and effects on the body
- Effects of epinephrine and aldosterone on the body
- Pancreatic hormones and their effects on the body

**Chapter 5 – Autonomic Nervous System**

- Know the structure and anatomy of the autonomic and somatic nervous systems
- What are the similarities and differences between the sympathetic and parasympathetic pathways
- Understand the effects of the sympathetic and parasympathetic systems on body organs

**Chapter 6 – Muscle Physiology**

- Structure of the skeletal muscle
- Explain the pathway of muscle contraction starting from the presynaptic action potential (end plate potential)
- Structure and function of thick and thin myofilaments
- Explain the power stroke
- What is a muscle twitch, how are contractions graded and what is meant by tetanus?

**Chapter 7 – Cardiovascular Physiology**

- General anatomy of the cardio system
- Total blood volume distribution
- Describe the anatomy of the heart
- What are the different myocardial cells?
- Describe the nodal and conducting cells and how the impulse travels through the heart
- Draw and label the ECG waveform
- Describe the stages of the cardiac cycle
- Understand cardiac output, stroke volume, heart rate, EDV, ESV

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- Know the effect of the sympathetic and parasympathetic systems on the heart
- Relationship of blood flow, pressure and resistance
- Structure and function of various blood vessels
- Understand the exchange within capillaries (including the pressures)
- Describe humoral regulation and the different agents
- Describe neural control mechanisms
- What is the baroreceptor reflex?
- Describe the mean arterial pressure