

**Physiology 533**  
**Lecture Schedule**

**Mondays and Wednesdays; 11:00 – 11:50; 125 McArdle**

<b>#</b>	<b>Date</b>	<b>Topic</b>
<b><u>January</u></b>		
1)	Wed 20	Introduction and overview; Start respiration
2)	Mon 25	Hemoglobin and oxygen transport
3)	Wed 27	Hemoglobin, cooperativity, allosteric proteins
<b><u>February</u></b>		
4)	Mon 1	CO <sub>2</sub> transport and red blood cells
5)	Wed 3	Membrane potentials and ion channels
6)	Mon 8	Ion channels: Cloning and molecular diversity
	Wed 10	no class
7)	Mon 15	More on ion channel diversity; Start action potentials
8)	Wed 17	Action potentials and the Hodgkin-Huxley equations
9)	Mon 22	Sodium channel voltage sensors; Potassium channel ion selectivity
10)	Wed 24	Solving problems on channels and membrane potentials
11)	Mon 29	<b>Exam 1</b>
<b><u>March</u></b>		
12)	Wed 2	Chemical synapses: overview; Acetylcholine receptors
13)	Mon 7	Structure-function relations in the acetylcholine receptor
14)	Wed 9	Ca <sup>2+</sup> entry and neurotransmitter release
15)	Mon 14	The quantal hypothesis of neurotransmitter release
16)	Wed 16	Molecules in neurotransmitter release and fusion pores
<b><u>March 19 – 27 Spring Break</u></b>		
17)	Mon 28	Excitatory synaptic transmission in neurons: Glutamate receptors
18)	Wed 30	Synaptic plasticity; Long-term potentiation; Learning and memory
<b><u>April</u></b>		
19)	Mon 4	Inhibitory synaptic transmission: GABA and glycine; epilepsy
20)	Wed 6	<b>Exam 2</b>
21)	Mon 11	G-protein coupled receptors
22)	Wed 13	Ion channel modulation; Slow synaptic potentials
23)	Mon 18	Digestion and Absorption-Breaking it all down.
24)	Wed 20	Motility Patterns and Secretion in the GI Tract.
25)	Mon 25	The visual system; photoreceptors; rhodopsin
26)	Wed 27	The visual system; color vision; retina circuitry
<b><u>May</u></b>		
27)	Mon 2	The olfactory system
28)	Wed 4	Review session
<b>Final Exam</b>		