

Zoology 214 Elementary Physiology

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Office Hours: Monday 1-2, Tuesday 11-12, Wednesday 3-4, Friday 10-11, and by appointment

Text: *Human Physiology: An Integrated Approach* 5th edition, by D.U. Silverthorn, 2010. Pearson/Benjamin Cummings. ISBN 978-0-32169-046-3 (bound) or 978-0-32162-584-7 (unbound). Available at the HSU Bookstore.

Primary Web Site: *Moodle* <https://learn.humboldt.edu/login/hsu/index.php/> The *Moodle* site will contain lecture notes, lecture & laboratory handouts, ancillary documents, and a Grade Book where your course grades will be posted.

Companion Web Sites: (optional)

CourseCompass <http://www.coursecompass.com/> The course id number is: o'gara84323. The *CourseCompass* is the on-line study guide for Silverthorn's *Human Physiology: An Integrated Approach*. A yearlong subscription is included in the price of new textbooks. To access the site you will need the access code provided in new texts. If you purchased a used text, access codes can be purchased separately from the *Physiology Place* web site below.

The Physiology Place <http://www.physiologyplace.com/> An access code is provided in new texts (the same one as used for the *CourseCompass* web site). The *Physiology Place* web site serves several textbooks. This is most easily accomplished by clicking on the appropriate cover of the text (so you need to know the appearance of the cover of the 5th edition of our text). As far as I can tell, all of the information present in *The Physiology Place* is present in the *CourseCompass* web site. The two sites are organized differently, so I'm not sure if one of the sites contains something the other doesn't.

Lecture Schedule

Date	Lecture Topic	Reading Assignment
Jan. 18	Introduction	Chapter 1, Appendix D
Jan. 19	EEK! Chemistry, Biomolecules	Chapter 2, Appendixes B, C
Jan. 20	Biomolecules, Cell Structure & Organelles	Chapter 2, 3
Jan. 24	Cells, Tissues	Chapter 3
Jan. 25	Enzymes	Chapter 4
Jan. 26	Enzymes, Glucose Oxidation	Chapter 4
Jan. 27	ATP Synthesis, Protein Synthesis	Chapter 4
Jan. 31	Membranes, Transport Across Membranes	Chapter 5
Feb. 1	Osmolarity, Tonicity	Chapter 5
Feb. 2	Membrane Potential	Chapter 5
Feb. 3	Prelab – Transport Mechanisms & Permeability	Chapter 5, <i>PhysioEx</i> Exercise 1 & Review Sheet
Feb. 7	Membrane Potential	Chapter 5
Feb. 8	Insulin Secretion & Diabetes	Chapter 5
Feb. 9	Cell to Cell Communication	Chapter 6
Feb. 10	Prelab – Human Nerve Conduction	Lab Handout
Feb. 14	Signal Pathways	Chapter 6, 7
Feb. 15	Homeostasis, Endocrinology	Chapter 6, 7
Feb. 16	Endocrinology, Endocrine Pathologies	Chapter 7
Feb. 17	Prelab - Reflexes	Lab Handout, p.447 - 457
Feb. 21	Nervous System Organization, Nervous System Cells, Membrane Potential	Chapter 8

Date	Lecture Topic	Reading Assignment
Feb. 22	Exam I	Through Endocrine Pathologies
Feb. 23	Action Potential, Propagation,	Chapter 8
Feb. 24	Prelab – Action Potential Simulation	Lab Handout, Chapter 8
Feb. 28	Saltatory Conduction, Synaptic Transmission	Chapter 8
March 1	Cholinergic Receptors, A Few Functions of the Brain	Chapter 8, 9
March 2	Speech, General Sensory Physiology	Chapter 9, 10
March 3	Prelab – Synaptic Transmission Simulation	Lab Handout, Chapter 8
March 7	Sensory Transduction, Somatosensory System	Chapter 10
March 8	Somatosensory System, Pain (ow, ow, ow)	Chapter 10
March 9	Hearing, Vestibular System	Chapter 10
March 10	Prelab – Sensory Physiology	Lab Handouts
March 14-18	Spring Break ☀	Trashy Novels
March 21	Vision I	Chapter 10
March 22	Vision II, Autonomic Nervous System	Chapter 10, 11
March 23	Autonomic Nervous System, Skeletal Muscle	Chapter 11, 12
March 24	Prelab – Human Muscle Contraction	Lab Handout, Chapter 12
March 28	Excitation – Contraction Coupling	Chapter 12
March 29	Circulatory Plan, Heart	Chapter 14
March 30	The Heart	Chapter 14
March 31	Cesar Chavez Holiday – NO CLASS	
April 4	Cardiac Arrhythmias, Blood Flow	Chapter 14, 15
April 5	Shock, Blood Clotting	Chapter 15, 16
April 6	Blood Clotting, Immune System	Chapter 16, 24
April 7	Prelab – Blood Flow	<i>PhysioEx</i> Exercise 5 & Review Sheet
April 11	Exam II	Through Blood Clotting & Blood Flow
April 12	Immune System	Chapter 24
April 13	Blood Types, Cell-mediated Immunity	Chapter 24
April 14	Prelab – Electrocardiology and Blood Pressure	Lab Handouts
April 18	Respiratory System & Airflow	Chapter 17
April 19	Gas Exchange	Chapter 18
April 20	Carbon Dioxide Transport, Urinary System	Chapter 18, 19
April 21	Prelab - ELISA	Lab Handout
April 25	Nephron Physiology	Chapter 19
April 26	Nephron Physiology	Chapter 19, 20
April 27	Digestion	Chapter 21
April 28	Prelab – Spirometry	Lab Handout
May 2	Digestion	Chapter 21
May 3	Reproduction	Chapter 26
May 4	Female Reproductive Physiology	Chapter 26
May 5	Implantation, Development	Chapter 26

The **Final Exam** is scheduled for **Friday, May 13** from 10:20 to 12:10.