

Tentative Schedule

Anatomy and Physiology

Biological Sciences 357			Spring 2010		
Instructor		Dr. Chris Hubbard			
		C. Hubbard- 337 Montgomery Hall, 753-3109, e-mail chubbard@niu.edu Office hours: MW 2:00 – 4:00			
Lecture Times and location.		Tues. and Thurs. 11:00 AM – 12:15 PM, Montgomery Auditorium			
Website***		Notes for this class are found at the following web address http://www.bios.niu.edu/course_offering/course.shtml ID = bios357, pass = 753soib			
Textbook		Seeley's Principles of Anatomy and Physiology (required text)			
Laboratory Textbook			Anatomy and Physiology (required text) Michael G. Wood		
Grading :					
Lecture Exams:	400 points			A = 85-100%	
Lab Exams:	200 points			B = 75 - 84 %	
Attendance/participation	25 points			C = 65 - 74 %	
Total points	625 points			D = 55 - 64%	
<u>General Course Grading Policy</u>					
<p>Examinations - Four lecture examinations plus cumulative exam (100 pts each) and 8 lab exams (25 pts. each) will be given throughout the course. This gives 700 total possible points in the course plus 25 points for attendance and participation. The final grade for the course will be based on the percentage of points obtained by the student for correct answers during all examinations divided by the total possible number of points (725). <u>No curve will be applied to grading in this course. If you are having problems in the course see me early not at the end of the course.</u></p>					

*****The web notes are only one source of information.**

They do **not** include **all** of the information that you will need to know for an exam and they are not necessarily self-explanatory. They were prepared to **help** you take notes in class and to help you organize your notes. If you do not attend the lectures you will have only half of the information necessary to pass the course.

The hope is that, because you will not have time to write down every word in class, you will be able to **listen to the explanation** of the information and be able to ask questions - that

will help in your understanding. I should also add that the lectures expound on the notes and are not limited only to the material in the web notes.

To use the notes to their best advantage, you should:

1. **Read notes and the text book over before class** ←
2. Download, print and bring the notes with you to lecture so that you can follow the lecture
3. When printing out the notes leave sufficient space so that you can write your own notes directly on the web notes.
4. Use the web notes to determine on which sections of the reading to focus.

LECTURE SCHEDULE

WEEK		Topic	CHAPTER(S)
#1	1/12	The Human Organism	1
	1/14	The Chemical Basis of Life Definition of Concepts: Matter and Energy Composition of Matter: Atoms and Elements How Matter is Combined: Molecules and Mixtures Chemical Bonds pH enzymes Inorganic Compounds Organic Compounds Nucleic Acids (DNA and RNA) proteins	2
#2	1/19	Cell Structures and Their Functions Overview of the Cellular Basis of Life The Plasma Membrane: Functions The Cytoplasm The Nucleus Protein synthesis	3
	1/21	Tissues, Glands and Membranes Epithelial Tissue Overview of tissue types	4
#3	1/26	Integumentary System The Skin 149 Appendages of the Skin 156 Functions of the Integumentary System 161	5
	1/28	Histology and physiology of Bones Bone, cartilage Structure Bone Development Bone Homeostasis: Remodeling and Repair	6
#4	2/2	<u>EXAM #1 - 100 points</u>	

	2/4	Histology and physiology of Muscles Muscle structure and function.	8
#5	2/9	Functional Organization of Nervous Tissue Organization of the nervous system Histology of the nervous system Neurophysiology Basic concepts of neural integration	10
	2/11	Central and Peripheral Nervous Systems Overview of the peripheral nervous system Spinal nerves Spinal reflexes The Brain Cranial nerves	11
#6	2/16	Integration of Nervous System Functions The Brain The spinal cord	12
	2/18	Autonomic Nervous System Introduction to the Autonomic Nervous System Anatomy of the Autonomic Nervous System Physiology of the Autonomic Nervous System Homeostatic Imbalances of the Autonomic Nervous System	14
	2/23	EXAM #2 100 points	
	2/25	Endocrine System Overview Hormones and mechanism of action Control of hormone release Endocrine glands	15
	3/2	Endocrine System (Continued)	15
	3/4	Blood Red and White blood cells Clotting, ABO blood groups	16
	3/6, 3/14	SPRING BREAK	
#10	3/16	HEART Circulation through the heart , electrical properties, cardiac cycle , cardiac output, regulation of heart rate	17
	3/18	Blood Vessels and Circulation BLOOD VESSELS and circulation Capillary Exchange	18
#11	3/23	Lymphatic System And Immunity Lymphatic Vessels Lymphoid Cells, Tissues, and Organs: An Overview Spleen • Thymus • Tonsils	19
	3/25	Immune System: (Continued) Part I: Innate (Nonspecific) Defenses Part 2: Adaptive (Specific) Defenses	19

#12	3/30	<u>EXAM #3 100 points</u>	
	4/1	Respiratory System Function and organization, Gas Laws Respiratory system Gas exchange-internal and external	20
#13	4/6	Digestive System Stomach, Pancreas, Live, Intestine and nutrient absorption <u>Digestive mechanisms</u>	21
	4/8	Nutrition, Metabolism, And Temperature Regulation Nutrition Metabolism Body Energy Balance	22
#14	4/13	Urinary System And Body Fluids Nephrons, Filtration, absorption, and secretion Glomerular filtration rate Fluid, electrolyte, and acid-base balance	23
	4/15	Urinary System And Body Fluids (Continued) Body Fluids, Water Balance, Electrolyte Balance, Acid-Base Balance	23
#15	4/20	Reproduction (Male)	24
	4/22	Reproduction (Female)	24
#16	4/27	Pregnancy	25
	4/29	Review	
	5/4 10:00- 11:50	<u>Exam #4 + comprehensive, 200 points – 50 questions over new material, 50 questions from previous material.</u>	

Laboratory Schedule Spring 2010

wk		TOPIC	Lab Exercise
1	1/11 - 1/12	Introduction to the Body Body Cavities, Microscope Orientation	# 1 –Lab Safety & review 2,3, 4
	1/13 - 1/14	Cell Structure (w/o cell division) Intro to Tissues: Epithelial & Connective Tissue Body Membranes	#5, #7 #8, #9 #13
2	1/18 - 1/19	Martin Luther King – NO LABS	
	1/20 - 1/21	Laboratory Practical # 1 (25 points)	

3	1/25 - 1/26	Skeletal System Overview and skull	#14 & #15
	1/27 - 1/28	Axial Skeleton	#15
4	2/1 - 2/2	Appendicular Skeleton	#16
	2/3 - 2/4	Laboratory Practical # 2 (25 points)	
5	2/8 - 2/9	Muscle action Muscles of the head and Neck	#17 pg 234 #19
	2/10 - 2/11	Muscles of the Chest and Abdomen	#20
6	2/15 - 2/16	Laboratory Practical #3 (25 Points)	
	2/17 - 2/18	Muscles of the Shoulder, Arm and Hand	#21
7	2/22 - 2/23	Muscles of the Pelvis, Leg and Foot	#22
	2/24 - 2/25	Review	#21 and #22
8	3/1 - 3/2	Laboratory Practical #4 (25 points)	
	3/3 - 3/4	Nervous Tissue External Anatomy of the Brain	#25 #26
9	3/8 - 3/11	Spring Break	
10	3/15 - 3/16	Internal Anatomy of the Brain	#27
	3/17 - 3/18	Spinal Cord and Spinal Nerves Autonomic Nervous System	#28 #29
11	3/22 - 3/23	Laboratory Practical #5 (25 points)	
	3/24 - 3/25	General Senses Anatomy of the Eye Anatomy of the Ear	#31 #32 #34
12	3/29 - 3/30	Endocrine System	#30
	3/31 - 4/1	Laboratory Practical #6 (25 points)	
13	4/5 - 4/6	The Blood and Heart	#36 #37
	4/7 - 4/8	The Systemic Circulation	#38
14	4/12 - 4/13	Anatomy of the Respiratory System	#41
	4/14 - 4/15	Laboratory Practical #7 (25 points)	#43
15	4/19 - 4/20	Anatomy of the Digestive System	#43
	4/21 - 4/22	Anatomy of the Urinary AND Reproductive System	#45
16	4/26 - 4/27	Laboratory Practical - 8 Not Cumulative (25 points)	