

Biology 121 – Human Anatomy and Physiology I Course Svllabus

Instructor: Rebekah Chapman

Office: Room 235 Humanities & Biology Prep Room

Office Hours: Monday 3pm-4pm, Thursday 11am-12noon

If you are unable to meet during office hours, e-mail me to schedule an appointment.

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Lecture Hours: MWF 9:35 – 10:25, Room 101, Pierce Hall

Laboratory: Thursday 2:30 – 5:30, Room 123, Pierce Hall

Required Texts:

- *Anatomy and Physiology*, by F.H. Martini. 2005. 1st Edition. Benjamin/Cummings Publishing Co., Inc.
- *Human Anatomy and Physiology Lab Manual*, Cat version, by Elaine N. Marieb. 2005. 8th Edition. Benjamin/Cummings Publishing Co., Inc.

Required Lab Materials:

- Dissection Kit. Available in bookstore. These are required for the 1st day of lab.

Recommended Lab Supplement:

- *A Guide to Anatomy and Physiology* by T.G. Rust. Southwest Educational Ent.

Course Objectives: Biology 121 is the first course of a two-part series exploring the organ systems of the human body. You will:

- ☛ Become familiar with the physical characteristics (anatomy) and the chemical mechanisms (physiology) which allow the body to function properly.
- ☛ Examine general features of biological systems in the context of the human body.
 - Structures and physiological actions of the integumentary, skeletal, muscular, and nervous systems are covered in 121.
 - Other organ systems and their function will be examined in Biology 122 in the spring.
- ☛ Learn anatomical terminology at all levels of biological organization, to identify structures on specimens and slides in the lab, and to explain their functions.
- ☛ Apply this knowledge to real-world scenarios by studying journal articles from Health Science fields as well as case studies relevant to the different organ systems.

EXPECTATIONS, EVALUATION, GRADING

Honor Code: Students are expected to abide by the *Oxford College Honor Code*. All assignments should include a signed pledge that no unauthorized aid has been given or received. To read the complete statement of the Honor Code, please see <http://www.emory.edu/OXFORD/CampusLife/Policies/honor.html>.

Attendance: Attached you will find the *Biology Department Absence Policy*. Absences, tardiness or a failure to follow the procedures outlined in the handout may result in a reduction in your grade, so please read the guidelines carefully – they apply to you!

Cell phones: Must be OFF during lecture and are NOT PERMITTED in labs or exams.

Lecture Exams: There will be three lecture exams, each worth 100points, and one final exam (cumulative) worth 150 points. Lecture exams will be held on Tuesdays and Thursdays from 8-9:30am (see syllabus for dates) and cover the topics indicated including the textbook readings, lecture notes and relevant laboratory concepts.

Laboratory Practical Exams: The three lab practical exams, each worth 50 points, will be held on the dates specified in the laboratory syllabus. These will cover the material learned in relevant laboratories.

Written Assignments: Writing assignments for this course include article summaries, case studies and summaries of group work. These will be described in more detail when they are assigned in class. You will work in groups on some of these assignments, but must still be careful that the written assignments are your own and all literature is properly referenced.

Class Participation: You will be evaluated on your active participation in lecture and laboratory, as well as during group discussion sections. Participation is expected and failure to do so will result in a reduction of your grade by up to 10%.

Late work: Assignments turned in after the due date will have 10% taken off per day.

Point Summary:

300 points	3 lecture exams
150 points	3 laboratory exams
150 points	final exam (cumulative)
<u>50 points</u>	written assignments
650 points	Total

Final Grades:

90 – 100% A 80 – 89% B 70 – 79% C 60 – 69% D <60% F
(+/- grades are given for all categories: A, B, C, D)

A minimum grade of C- in this course is required for pre-nursing students.

<p align="center">Biology 121 – Human Anatomy and Physiology I Course Syllabus – Topics Room 404 Science Hall</p>

Date	Topic	Reading
W-Aug. 29	Introduction Organization of the Human Body	Ch. 1
F-Aug. 31	Homeostasis & Body Function	Ch. 1
M-Sept. 3	<i>Labor Day Holiday – NO CLASS</i>	
W-Sept. 5 ¹	The Human Body at the Chemical Level	Ch. 2
F-Sept. 7	Basic Cell Structure & Function	Ch. 3
M-Sept. 10	Cancer	Ch. 3
W-Sept. 12	Transport of Molecules	Ch. 3
F-Sept. 14	Tissues: Epithelial Tissue and Glands	Ch. 4
Sept. 17	Tissues: Connective Tissue, Membranes & More	Ch. 4
Sept. 19	Integument: Epidermis & Dermis	Ch. 5
Thurs. Sept. 20	EXAM I: 8:00 – 9:30AM	Ch. 1-4
Sept. 21	Integument: Other structures, Injury & Repair	Ch. 5
Sept. 24	Bones: Shape, Structure and Histology	Ch. 6
Sept. 26	Bones: Development, Growth & Repair	Ch. 6
Sept. 28	Bones	Ch. 6
Oct. 1	Skeleton: Divisions – Axial Skeleton: The Skull	Ch. 7
Oct. 3 ²	Axial Skeleton: Vertebral Column	Ch. 7
Oct. 5	Axial Skeleton: Thoracic Cage	Ch. 7
Oct. 8	<i>Oct. 8-9 Fall Break – NO CLASS</i>	
Oct. 10	Appendicular Skeleton: Upper Limbs	Ch. 7
Oct. 12	Appendicular Skeleton: Lower Limbs	Ch. 7
Oct. 15	Articulations: Types of Joints & Motion	Ch. 8
Oct. 17	Articulations and Movement (Form and Function)	Ch. 8
Oct. 19	Muscle Tissue: Review → Skeletal Muscle Tissue Structure	Ch. 9
Oct. 22	Cardiac and Smooth Muscle Tissues	Ch. 9
Tuesday Oct. 23	EXAM II: 8:00 – 9:30AM	Ch. 5-8
Oct. 24	Skeletal Muscle Function: Contraction	Ch. 9
Oct. 26	Tension Production and Energy	Ch. 9
Oct. 29	Muscle Organization & Function: Muscle Fibers	Ch. 10
Oct. 31	Nervous System: Overview – Nerve Tissue and Neurons	Ch. 11

¹ Last Day to Change Classes (last day of drop/add)

² Last Day for Changing Classes w/out Academic Penalty

Nov. 2	Neurophysiology: Membrane Channels and Potentials	Ch. 11
Nov. 5	Action Potentials & Synaptic Activities	Ch. 11
Nov. 7	Spinal Cord and Spinal Nerves	Ch. 12
Nov. 9	Reflexes	Ch. 12
Nov. 12	The Brain – Organization and Structures	Ch. 13
Nov. 14	The Brain – Medulla oblongata, Pons, Deincephalon...	Ch. 13
Thursday Nov. 15*	EXAM III: 8:00 – 9:30AM* *date subject to change	Ch. 9-12
Nov. 16	The Brain – Continued...	Ch. 13
Nov. 19	Neural Disorders	Ch. 13
<i>Nov. 21-23</i>	<i>Thanksgiving Break – NO CLASS</i>	
Nov. 26	Senses: Receptors; Olfaction & Taste	Ch. 14 & 15
Nov. 28	Senses: Vision	Ch. 15
Nov. 30	Senses: Hearing & Balance	Ch. 15
Dec. 3	Somatic & Autonomic Nervous System	Ch. 14
Dec. 5	Autonomic Nervous System	Ch. 14
Dec. 7	Neural Disorders	
Dec. 10	Body Systems – Working Together – Form & Function Revisited	
Dec. 13-19	Final Exams	

<p align="center">Biology 121 – Human Anatomy and Physiology I Laboratory Syllabus Room 125 Pierce Hall</p>

Date	Topic	Supplies	Lab Exercise/Reading
Sept. 6	Introduction to Anatomy/Dissection Using Microscopes	DK	Exercises 1, 2, 3
Sept. 13	Cells and Cellular Transport	None	Ex. 4, 5A
Sept. 20	Tissues and Integumentary System	None	Ex. 6A, 7, 8
Sept. 27	LAB PRACTICAL EXAM #1 (covers labs 1-3)		
Oct. 4	Osseous Tissues and Bones Axial Skeleton/Medical Imaging	None	Ex. 9, 10
Oct. 11	Appendicular Skeleton Articulations	DK	Exercises 11, 12, 13
Oct. 18	Muscles – Gross Anatomy	DK	Ex.14, 15 Dissection Ex. 1 (p751)
Oct. 25	Muscles – Gross Anatomy	DK	Ex.14, 15 Dissection Ex. 1 (p751)
Nov. 1	LAB PRACTICAL EXAM #2 (covers labs 4-7)		
Nov. 8	Brain and Cranial Nerves	DK	Ex. 17, 19, 21
Nov. 15	Sensory Reception, Olfaction, Taste	DK	Ex. 22, 23, 26
Nov. 22	THANKSGIVING BREAK No Lab		
Nov. 29	Vision, Hearing, Equilibrium	DK	Ex. 24, 25
Dec. 6	LAB PRACTICAL EXAM #3 (covers labs 8-10)		

DK = Dissection Kit Required

You should always bring your **lab manual**, **lecture text**, and **Rust guide** to lab.

Appropriate dress is required. Cell phones and cameras are not permitted in lab.

Lab meets from 2:30-5:30 on Thursdays in Pierce Room 125