BIOL 265: Human Anatomy & Physiology I
Fall 2018; MWF 12:30–1:20pm, Newton 202

Course Objectives:
This course is designed to provide an introduction to the anatomy and physiology of the human body. It is specifically focused on preparing students for future study of these topics in health-related professional schools. As such, it is a challenging course, but if you successfully complete it you will have a definite advantage in your future training.

This course is two semesters long. The first semester focuses on the skeletal, muscular, and nervous systems and is organized regionally. This course contains a lecture and a required laboratory, which will feature dissections as well as physiological experiments.

Learning Outcomes:
- Identify structural components of the human body
- Understand physiological processes and functions
- Integrate anatomical and physiological knowledge of organs and organ systems
- Use critical thinking to solve clinical cases using basic concepts of anatomy and physiology

Instructors:
Dr. Sara H. Burch, ISC 358, burch@geneseo.edu

Office Hours:
Monday 9:30–11:30 AM and Wednesday 2:00–4:00 PM, or by appointment.

Required Textbooks:
- Anatomy & Physiology: An Integrative Approach, 3rd Edition by McKinley, O'Loughlin, & Bidle (2018), **McGraw-Hill Connect Edition.** (see note below)
- A Photographic Atlas for Anatomy & Physiology by Hebert, Heisler, Krabbenhoft, Malakhova, & Chinn (2015), Pearson. ISBN 9780321869258

Connect site for courses: https://connect.mheducation.com/class/s-burch-fall-2018

NOTE: The university bookstore is only selling the Atlas required for lab. You will have to purchase an access code for the Connect edition of the main textbook, or you can purchase access directly through the course site (recommended). The online Connect (ebook) version of the textbook is required for weekly homeworks that will be assigned through that system. If you would like a hard copy, you can purchase a loose-leaf copy through Connect.

Lecture Notes and Lab Handouts:
Powerpoint slides from the lectures will be placed on the course website 24 hours prior to class time. Handouts for labs will be placed on the course website at least 24 hours prior to the first lab day. You are responsible for printing out these handouts and bringing them to your lab section.

Assignments:

READINGS: The readings relating to each lecture are given in the schedule below. You should attempt to read through the sections given and study the figures and tables before each lecture. Optional, but highly-recommended, pre-reading assignments will be given through the Connect module and due before lecture begins. They will not be graded for points, but if you complete all of these pre-reading assignments, you will earn 2 extra credit points on the relevant exam.

HOMEWORK: There will be 11 weekly homeworks assigned through the Connect system worth 4 points each; only 10 will be counted toward the final grade. These are designed to give you a chance to review the material and practice with questions similar to ones you would get on the test. They will be due before class as noted on the lecture schedule below. Homeworks will be scored as follows: 100–76%=4pts; 75–51%=3 pts; 50–24%=2pts; 25–5%=1pt

QUESTION OF THE DAY: At various points during every class period you will be given a question to do in a small group or to answer via TopHat. If you participate in these questions (4 missing days permitted) you will receive 5 extra credit points on your final grade. Attendance will primarily be marked via TopHat responses, but you will also turn in an answer sheet for the main QOD. Everyone from your group who is present for the question must sign the answer sheet in order to receive credit for the question. Any group that submits a group-member's name that is not present at the time the question was done will lose all credit for that question. Additionally, any student who is found to be answering TopHat questions remotely (not in class) will not receive credit for attendance that day.

Exams:

The first 3 exams are non-comprehensive and only cover material from lectures, readings and assignments since the previous exam. The final exam will be comprehensive, with 50% of the exam coming from the material covered since the third exam, and 50% of the exam coming from material from the entire semester. You may choose to have the comprehensive portion of the final exam replace ONE of your previous exam scores. You must inform me if you wish to take this option BEFORE the final exam. Quizzes are designed to provide self-evaluation throughout the topic "block", so that you can make sure your studying is on-track. There will be 8 quizzes given during the semester. Only 6 of these quizzes will count toward your grade, and 2 will be dropped.

The lab is considered to be part of your entire grade for this course and makes up about 35% of your total points. Lab grades are determined by 2 non-comprehensive practical exams, 3 lab reports based on physiology experiments in lab, and 2 short experiment writeups. There is also a participation grade worth 5 points each day; these will be assigned by your lab instructor based on preparedness, punctuality, and active participation in dissections and experiments.

Lecture:		
Exams (3)	100 pts each	300 pts
Final Exam	200 pts	200 pts
Quizzes (6)	10 pts each	60 pts
Homeworks (10)	4 pts each	40 pts
Syllabus Quiz (5)	5 pts	5 pts
Lab:		
Practical Exams (2)	50 pts each	100 pts
Histology Exam (1)	50 pts	50 pts
Lab Reports (1)	50 pts	50 pts
Lab Worksheets (9)	5 pts	45 pts
Total Points		850 pts

The grading scale for this course is the following:

A: 93%–100%	A–: 90%–92.9%	B+: 87%–89.9%
B: 83%–86.9%	B–: 80%–82.9%	C+: 77%–79.9%
C: 73%–76.9%	C–: 70%–72.9%	
D: 60%–69.9%	E: <59.9%	

Excuse Policies:

NO MAKE-UP EXAMS will be given except in cases of extenuating circumstances (a direct and unavoidable conflict of an academic or professional nature). Vacations, weddings, and leaving early for holidays are not acceptible excuses for taking an exam early or late. If you can't make the scheduled exam date you must contact the instructor at least **ONE WEEK PRIOR** to the exam time. In cases of severe illness or family affairs, written documentation must be provided. Contact the instructor as soon as possible about these circumstances to make arrangements and provide documentation. Exam dates are final and will not be changed.

Cell Phone & Computer Policies:

Lecture slides will be posted online prior to each class session, and students are welcome to download the slides and bring them to class on a laptop to take notes. However, out of respect for your fellow classmates and the instructor, laptops are **NOT** to be used to check email, play games or other activities unrelated to the class during the entire 50 minute class period. Cell phones will not be permitted in lecture or lab. In lab, texting will result in loss of points for participation score. Anyone seen with a cell phone out during an exam or quiz will immediately be given a zero (0) for that exam or quiz.

Accommodations:

SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional, or cognitive disabilities, or for medical conditions related to pregnancy or parenting. Students should contact Dean Buggie-Hunt in the Office of Disability Services (tbuggieh@geneseo.edu or 585-245-5112) and their faculty to discuss needed accommodations as early as possible in the semester.

Lecture Schedule

DATE			TOPIC	READING
Aug	27	M	1. Introduction & Organization	Sections 1.1–1.4
	29	W	2. Homeostasis & Cell Biology Review	Sections 1.5, 1.6, 4.1–4.5, 4.6d
	31	F	3. Tissues I: Epithelium & Membranes	Sections 5.1, 5.5
Sept	3	M	NO CLASS – LABOR DAY	
	5	W	4. Tissues II: Connective Tissue **[Quiz 1] [HW 1 Due]**	Section 5.2
	7	F	5. Tissues III: Integument	Sections 6.1–6.3
	10	M	6. Bones: Intro & Histology	Sections 7.1–7.5, 7.7
	12	W	7. Bone Remodeling & Joints **[Quiz 2] [HW 2 Due]**	Sections 7.6, 7.8, 9.1–9.4
	14	F	8. Muscles: Intro & Histology	Sections 10.1, 10.2, 10.5, 10.9, 10.10
	17	M	9. Nerves: Intro & Histology	Sections 12.1–12.6
	19	W	Review **[HW 3 Due]**	
	21	F	**EXAM #1**	
	24	M	10. Neuromuscular Physiology I	Sections 12.7–12.9
	26	W	11. Neuromuscular Physiology II	Sections 12.9–12.11
	28	F	12. Neuromuscular Physiology III	Sections 10.3, 10.4, 10.6, 10.7
Oct	1	M	13. Spine & Spinal Cord **[Quiz 3][HW 4 Due]**	Sections 8.5, 14.1–14.3, 14.5a
	3	W	14. PNS I: Spinal Reflexes & General Sensation	Sections 14.6, 16.1, 16.2
	5	F	15. PNS II: Autonomics	Sections 15.1–15.6
	8	M	NO CLASS – MID-SEMESTER BREAK	
	10	W	16. Trunk **[Quiz 4][HW 5 Due]**	Sections 8.6, 8.10, 11.4–11.6, 14.5c
	12	F	17. Neck	Sections 8.3, 11.3d–e, 14.5d
	15	M	18. Organization of the Upper Limb (material from this lecture will NOT be on Exam #2)	Sections 8.8, 8.9, 11.8, 14.5e
	17	W	Review **[HW 6 Due]**	

DATE			TOPIC	READING
	19	F	**EXAM #2**	
	22	M	19. Shoulder & Axilla	Sections 9.7b, 11.8a, 11.8b
	24	W	20. Elbow	Sections 9.7c, 11.8c
	26	F	21. Wrist & Hand	Sections 11.8d, 11.8e
	29	M	22. Organization of the Lower Limb **[Quiz 5] [HW 7 Due]**	Sections 8.11, 11.9, 14.5f,g
	31	W	23. Hip & Gluteal Region	Sections 9.7d, 11.9a
Nov	2	F	24. Knee	Sections 9.7e, 11.9b
	5	M	25. Ankle & Foot **[Quiz 6] [HW 8 Due]**	Sections 9.7f, 11.9c, 11.9d
	7	W	Review	
	9	F	**EXAM #3**	
	12	M	26. Skull & Cranial Meninges	Sections 8.2, 13.2
	14	W	27. Brain I	Sections 13.1, 13.3
	16	F	28. Brain II	Sections 13.4, 13.5, 13.7
	19	M	29. Brain III & Spinal Pathways **[Quiz 7] [HW 9 Due]**	Sections 13.6, 13.8, 14.4
	21	W	NO CLASS – THANKSGIVING	
	23	F	NO CLASS – THANKSGIVING	
	26	M	30. Cranial Nerves I, II (Vision, Olfaction)	Sections 13.9, 16.3a, 16.4
	28	W	31. Cranial Nerves III, IV, & VI (Eye Movements)	Sections 11.3b, 13.9
	30	F	32. Cranial Nerve V (Sensation, Mastication)	Sections 9.7a, 11.3c, 13.9
Dec	3	M	33. Cranial Nerve VII (Muscles of Facial Expression) **[Quiz 8] [HW 10 Due]**	Sections 11.3a, 13.9, 16.3b
	5	W	34. Cranial Nerve VIII (Hearing & Balance)	Sections 13.9, 16.5
	7	F	35. Cranial Nerves IX, X, XI, XII (Tongue & Neck)	Sections 11.3c, 11.3d, 13.9, 23.3a
	10	M	Review **[HW 11 Due]**	
	12	W	**FINAL EXAM: 3:00–6:00pm**	

Human Anatomy & Physiology Lab Information

The lab for this course is designed to provide hands on experience with the anatomy and physiology of the human body through dissections, studies of models, and physiological experiments.

In the lab we will be dissecting organs of mammals including sheep, pigs, and cows. **Dissection is a *required* part of this lab** and all students are expected to take part in dissection. Students who do not dissect will lose participation points as part of the lab grade.

The lab is scheduled for three hours, and in most cases your tasks will consume the entire lab time. If you find that you have completed the day's tasks prior to the end of lab, you should use the extra time to review the material from previous labs. Students observed leaving early from lab without a legitimate excuse and permission from the instructor will lose participation points.

Instructors

Dr. Sara H. Burch, ISC 358, burch@geneseo.edu
Mr. Joshua Baecker, ISC 332B, baecker@geneseo.edu

Required Lab Manual

The only required text for the lab portion of this course is the Atlas listed below. Additional materials will be provided through Canvas.

- A Photographic Atlas for Anatomy & Physiology by Hebert, Heisler, Krabbenhoft, Malakhova, & Chinn (2015)

Additional Supplies: Some tool for drawing and coloring lab worksheets will be required. Colored pencils are recommended.

Assignments:

Questions from anatomy lab worksheets will be turned in (uploaded to Canvas) at the end of each lab period. Instructors will check lab worksheets for completion of drawing- and labeling-based activities. Physiology-based labs will result in a lab report to be written up and turned in at the date given during the lab session. Details on how to write lab reports will be provided on Canvas. You may work with your group on the content of the lab report, but each student must submit a typed report written in their own words. Lab reports will be due TWO WEEKS after experiments are performed, at the beginning of your assigned lab section. Late lab reports will be penalized by 5 points (one letter grade) for each day they are late.

It is important that you understand what plagiarism is and that if you do plagiarize in this course the consequences are very serious. Punishments range from receiving a failing grade on the plagiarized assignment to failing the course and having your name sent to the Dean. The following link explains plagiarism. http://library.geneseo.edu/~elmore/Types_plagiarism.htm
If you have questions please feel free to ask the faculty or someone in the library.

Lab Schedule

DATES	LAB	TOPIC
Aug 28–30	1	Introduction
Sept 4–6	2	Histology I
Sept 11–13	3	Histology II
Sept 18–20	4	**HISTOLOGY EXAM** Neuromuscular Physiology I
Sept 25–27	5	Neuromuscular Physiology II
Oct 2–4	6	Back & Thorax
Oct 9–11		NO LAB – MID SEMESTER BREAK
Oct 16–18	7	Neck, Abdomen & Pelvis
Oct 23–25	8	Upper Limb
Oct 30–Nov1		**LAB PRACTICAL #1**
Nov 6–8	9	Lower Limb
Nov 13–15	10	Skull & Brain
Nov 20–22		NO LAB – THANKSGIVING
Nov 27–29	11	Muscles of Facial Expression, EENT
Dec 4–6		**LAB PRACTICAL #2**