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BIOH 461.80: Tutoring Human Anatomy and Physiology for Health Professions I - Honors

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BIOH461 Syllabus Fall 2020

Tutoring Human Anatomy and Physiology for Health Professions I (honors)

Course Information:

Instructor: Laurie Minns, PhD
Office: BioResearch Building Rm. 106
Phone: 406-243-6013
Office Hours: Mondays and Wednesdays noon-1pm, by appointment
Email: Laurie.Minns@mso.umt.edu
Zoom Link for BIOH365 Lectures (MWF 11:00-11:50am)

https://umontana.zoom.us/j/93214247421?pwd=bmpJem5pb0RYUk9qdGJMdjFkbU5MQT09

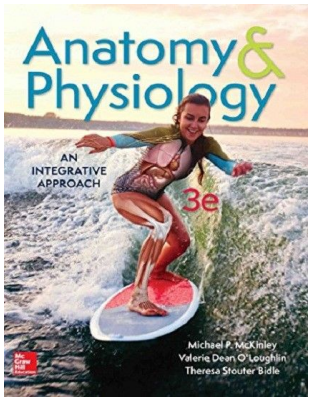
**** Pre-requisite: Grade of B- or higher in BIOH365, consent of instructor**

Course Structure

- Lecture, discussion and assistance in delivering course content during lecture for BIOH 365/370.
- Weekly meetings to discuss teaching strategies effective for undergraduate BIOH365/370 courses.
- Supervised peer leader activities of lecture-based material for BIOH365.
- Course Meeting times/days MWF 11:00am-11:50am in HS207 (or via remote delivery). Meet 1 additional hour/week to review and pilot peer leader group activities (time TBD).

Required materials:

Anatomy and Physiology, an Integrative Approach, 3rd edition. McKinley, O'Loughlin, Bidle. McGraw Hill, 2018.



Course Goals, Objectives and Outcomes:

The two-semester sequence is divided as follows:

BIOH 461	BIOH 463
Body Plan & Organization Homeostasis Chemistry & Cell Biology Review Histology Integumentary System Skeletal System & Articulations Muscular System Nervous System Special Senses	Endocrine system Cardiovascular System Lymphatic System and Immunity Respiratory System Digestive System Metabolism Urinary System Fluid/Electrolytes and Acid/Base Balance Reproductive System

Course Objectives:

Upon successful completion of this two-course sequence, you will have mastered the conceptual and practical information regarding the anatomy and physiology of the human organism by providing tutoring based on lecture material covered in the two-semester sequence of Human Anatomy and Physiology for Health Professionals (BIOH365/370). Enrolled students will integrate principles learned in BIOH365/370 *(Human Anatomy and Physiology)* into practice by providing smaller group instruction to current BIOH365 students.

Learning Objectives:

Upon completion of this course, a student will be able to:

1. Understand the complex principles associated with the Human Anatomy and Physiology and assist in teaching these concepts to students enrolled in BIOH365.
2. Use a multi-modal instructional approach to help students enrolled in BIOH365 better understand the complex learning material.

3. Understand and discuss the methodology and activities scientists use to gather, validate and interpret data related to natural processes as it applies to Human Anatomy and Physiology.
4. Detect patterns, draw conclusions, develop conjectures and hypotheses regarding normal human physiology and help students anticipate the pathophysiology that could result when homeostasis is lost in humans.
5. Understand and discuss how quantitative measurement, scientific observation, and logical/critical reasoning verify scientific laws and theories as they pertain to advances in medical understanding.

Learning Outcomes

1. Demonstrate understanding of chemical and biological principles and knowledge that serve as the foundation for understanding human anatomy and physiology.
2. Understand and analyze cellular processes governing development, growth and normal function of the human body.
3. Understand the processes involved with maintaining homeostasis and anticipate what may occur when homeostatic balance mechanisms are lost.
4. Demonstrate practical knowledge of human gross and microscopic anatomy using human cadavers and prepared histological slides.
5. Identify structures in the body and analyze their relationship with other structures.
6. Describe development, regeneration and normal function of body systems
7. Understand the cellular and physiological mechanisms that drive tissue formation and function.
8. Employ the scientific process for understanding principles of anatomy and physiology.
9. Analyze A&P observations and data and determine the potential physiological consequences.
10. Become familiar with current teaching practices and ways to address the various learning styles of students in the human anatomy and physiology courses.
11. Develop professional behavior and strategies for explaining difficult concepts in human anatomy and physiology to adults with an application in health professions.

COVID-19 Safety Protocols

1) Review the University of Montana policies and suggestions surrounding Covid-19. They can be found at the following link: https://www.umt.edu/coronavirus/coronavirus_faqs.php
2) You must wear a cotton face covering (preferably one that has double-layered fabric) in all UM buildings and when outside distancing cannot be maintained.
3) Maintain a 6-ft distance between other people at all times.

4) If you are experiencing an symptoms of Covid-19, contact Dr. Minns and *stay home.* You are capable of completing this class with no loss of points remotely.
5) Keep in mind that your behavior and social patterns outside of class can make you more likely to come in contact with Covid-19. Please be conscientious of your social interactions and practice social distancing and good hygiene outside of the classroom.

To establish and maintain an effective rapport with individual students/small student groups and to design tutor instruction around adult learning principles. Participants are required to:

- Attend at least 60% of the BIOH365 lectures as an observer (questions to Dr. Minns must be communicated outside of scheduled class times).
- Lead at least one 1-2 hour review session on lecture material every other week. Some of these dates will occur during class sessions as indicated in the BIOH365 course syllabus. These review sessions may be team led.
- Be on time and prepared for all review sessions; communicate any student issues ASAP via email to Dr. Minns regarding a review session session experiences.
- Carbon Copy (cc) all emails to students to Dr. Minns. If you are unsure how to respond to a student question, forward the emails to me and I will help you construct and appropriate response.
- Maintain open communication with Dr. Minns regarding student issues that may make themselves evident during review sessions.
- Monitor the Moodle course website for important announcements and course materials.
- Be an active and responsible member in the cadaver dissection group to which you are assigned (Victoria Gifford and Syd Ladas will communicate these expectations to you).

Grading:

Students will begin the semester with a grade of a Solid A. If office hours are not maintained (regardless of student attendance at scheduled office hours), then students will lose points that will affect the course grade.

Activity	Percent of Final grade
Prepare for and run review sessions	20%
Attend Zoom Lectures and Communicate with Dr. Minns about questions.	20%
Prepare and Deliver a smaller group discussion for the BIOH365 Lecture.	40%

Complete Cadaver Dissection and dissection teaching materials for the assigned body region.	20%

Failure to notify Dr. Minns of any absences prior to scheduled sessions will result in a drop of one letter grade. In the case of an emergency or illness that prohibits tutors from maintaining scheduled office hours, tutors are required to email Dr. Minns so that she may send an announcement to students enrolled in BIOH365 who may have planned on attending office hours.

All grades will be assessed with a traditional grade. Credit/no Credit grading is not available for this course.

Final Grade	Percent
A	90% or higher
B	80-89%
C	70-79%
D	60-69%
F	Below 60%

Students with Disabilities:

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommason Center 154 or 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

Students with disabilities who would like reasonable accommodations must provide documentation to both Dr. Minns and the lab instructor the first week of class so that appropriate arrangements can be made. In the event that students decide after the semester begins that they would like to disclose their disability and request accommodations, students must provide documentation at least 10 days prior to the upcoming assessment so that instructors may prepare appropriately. It is the responsibility of students to make sure they understand the types of modifications available to them in both the lecture and laboratory portions of the course prior to assessments.

Cultural Leave Policy:

UM has a Cultural and Ceremonial Leave Policy: “Cultural or ceremonial leave allows excused absences for cultural, religious, and ceremonial purposes to meet the student’s customs and traditions or to participate in related activities. To receive an

authorized absence for a cultural, religious or ceremonial event the student or their advisor (proxy) must submit a formal written request to the instructor. This must include a brief description (with inclusive dates) of the cultural event or ceremony and the importance of the student's attendance or participation. Authorization for the absence is subject to approval by the instructor. Appeals may be made to the Chair, Dean or Provost. The excused absence or leave may not exceed five academic calendar days (not including weekends or holidays). Students remain responsible for completion or make-up of assignments as defined in the syllabus, at the discretion of the instructor."

Safety Considerations:

- All review sessions must occur in UM classrooms with the door open during scheduled review session hours.
- Do not share your personal information with students.
- You are not allowed to tutor students outside of scheduled office hours. Set boundaries and stick with them with regard to time and location of tutoring sessions.
- If you ever feel you are in danger during a study session, notify Campus Security immediately (ext. 4000).
- Notify Dr. Minns if you have any safety concerns.
- Maintain personal space between you and students at all times.
- It is not appropriate to date or obtain personal information from students you are tutoring; maintain a professional demeanor.

Universal Due Dates:

Aug. 26: Peer Leader Activities 1-6 due to workshop on the Moodle Page. (See Rubric)

- Sept. 4: Review Activity #1 as Peer Leaders
- Sept. 18: Review Activity #2 as Peer Leaders
- Oct. 2: Review Activity #3 as Peer Leaders
- Oct. 16: Review Activity #4 as Peer Leaders
- Oct. 23: Review Activity #5 as Peer Leaders
- Nov. 13: Review Activity #6 as Peer Leaders

Peer Leader Activity: The purpose of this activity is to provide engaging content for students during live, in-class sessions. The basis for the activity can be a TED talk, radiopedia, a peer-reviewed journal article or other credible source.			
	Available Points	**Points Earned**	**Comments**
Pre-Activity Work Provide a credible source for students to review prior to the in-class activity. Also include important reading sections from the assigned book (indicate sections from the McKinley text). I	**5**		
Write 5 questions students must complete that demonstrates they reviewed the material for students to take via a Moodle quiz. You will want to review how to make a quiz on Moodle using this resource: https://www.youtube.com/watch?v=iLPVsqJYjzk	**5**		
In-Class Activity Work Provide an itinerary for the in-class zoom session This word document should be a minute by minute breakdown of how to execute the in-class activity. Include an Activity Key for Peer leaders.	**5**		
Provide the new In-class Activity Content Provide new engaging content like a case study that builds on the pre-activity work. Divide students into zoom breakout sessions and have them answer your assigned questions. During the in-class session, reconvene into a group and have students review the answers from the breakout sessions. Write 2 new exam questions from this new material (these are determined in advance and will be provided to all peer leaders in an activity key). These two new exam questions must be provided (in word with answers indicated) to Dr. Minns by the Aug. 26 due date. Post new activity material into Moodle.	**5**		
Post Assignment Activities Review the Moodle grade book for the pre-activity. For missing work, assign a grade of zero.	**5**		
Zoom Class Facilitation	**10**		

Effectively facilitate small group learning in zoom sessions (this includes sessions designed by other peer leaders)			
Total	**40**		

Important course dates will follow the syllabus for BIOH365 below:

Day of Week	Dates	Monday	Readings McKinley
Wednesday	Aug. 19	An Introduction to the Human Body	Chapter 1
Friday	Aug. 21	An Introduction to the Human Body	Chapter 1
Sunday	Aug. 23	LearnSmart Chap. 1 Assignment due	
Monday	Aug. 24	An Introduction to the Human Body	Chapter 1
Wednesday	Aug. 26	Chemistry Review: Biologically relevant molecules (Chemistry will not be covered in depth in Lecture but you are responsible for comprehending all material in the text)	Chapter 2
Friday	Aug. 28	Chemistry Review: Biologically relevant molecules	Chapter 2
Sunday	Aug. 30	LearnSmart Chap. 2 Assignment due LearnSmart Chap. 3 Assignment due	
Monday	Aug. 31	Enzymes and metabolism	Chapter 3
Wednesday	Sept. 2	Biology of Cell	Chapter 4
Friday	Sept. 4	Biology of Cell	Chapter 4
Sunday	Sept. 6	Learnsmart Chap. 4 due	
Monday	Sept. 7	Labor Day- no class	

Tuesday	Sept. 8	Peer Leader Pre-Activity #1 Due 11:59pm	
Wednesday	Sept. 9	**Peer Leader Activity #1**	
Friday	Sept. 11	Biology of the cell	Chapter 4
Sunday	Sept. 13	Lecture Exam 1 DUE by 11:59pm MST	Chapters 1-4
Monday	Sept. 14	LearnSmart Chap. 5 due Tissue Organization	Chapter 5
Wednesday	Sept. 16	Tissue Organization	Chapter 5
Friday	Sept. 18	Tissue Organization	Chapter 5
Sunday	Sept. 20	LearnSmart Chap 6 due	
Monday	Sept. 21	Integumentary System	Chapter 6
Tuesday	Sept. 22	Peer Leader Pre-Activity #2 Due 11:59pm	
Wednesday	Sept. 23	**Peer Leader Activity #2**	
Friday	Sept. 25	Skeletal System: Bone Structure and Function	Chapter 7
Sunday	Sept. 27	LearnSmart Chap. 7 due	
Monday	Sept. 28	Skeletal System: Bone Structure and Function	Chapter 7
Wednesday	Sept. 30	Skeletal System: Bone structure and function	Chapter 7
Friday	Oct. 2	Skeletal System: Axial and Appendicular Skeleton	Chapter 8
Sunday	Oct. 4	LearnSmart Chap. 8 due LearnSmart Chap. 9 due	
Monday	Oct. 5	Skeletal System: Axial and Appendicular	Chapter 8
Tuesday	Oct. 6	Peer Leader Pre-Activity #3 Due 11:59pm	
Wednesday	Oct. 7	**Peer Leader Team Activity #3**	
Friday	Oct. 9	Muscle Tissue	Chapter 10
Sunday	Oct. 11	LearnSmart: Chap. 10 due	
Monday	Oct. 12	Muscle Tissue	Chapter 10

Wednesday	Oct 14	Muscle Tissue	Chapter 10
Friday	Oct. 16	Muscle Tissue	Chapter 10
Sunday	Oct. 18	Lecture Exam 2 Due by 11:59pm MST	Chapters 5-10
Monday	Oct. 19	LearnSmart Chap. 12 due Nervous System: Nervous Tissue	Chapter 12
Tuesday	Oct. 20	Peer Leader Pre-Activity #4 due 11:59pm	
Wednesday	Oct. 21	Peer Leader Team Activity #4	Chapter 12
Friday	Oct. 23	Nervous System: Nervous Tissue	Chapter 12
Sunday	Oct. 25	LearnSmart Chapter 13 due	
Monday	Oct. 26	Nervous System: Brain and Cranial Nerves	Chapter 13
Tuesday	Oct. 27	Peer Leader Pre-Activity #5 Due 11:59pm	
Wednesday	Oct. 28	**Peer Leader Team Activity #5**	
Friday	Oct. 30	Nervous System: Brain and Cranial Nerves	Chapter 13
Sunday	Nov. 1	LearnSmart Chapter 14 due	
Monday	Nov. 2	Nervous System: Brain and Cranial Nerves	Chapter 13
Tuesday	Nov. 3	Peer Leader Pre-Activity #6 Due	
Wednesday	Nov. 4	**Peer Leader Team Activity #6**	
Friday	Nov. 6	Nervous System: Spinal Cord and Spinal Nerves	Chapter 14
Sunday	Nov. 8	Exam 3 due by 11:59pm MST	Covers 12, 13, 14
Monday	Nov. 9	LearnSmart Chapter 15 due Nervous System: Autonomic Nervous System	Chapter 15
Wednesday	Nov. 11	Veteran's Day- no class Thank you for your service!	Chapter 15
Friday	Nov. 13	Nervous System: Autonomic Nervous System Nervous System: Senses	Chapter 16

Sunday	Nov. 15	LearnSmart Chapter 16 due	
Monday	Nov. 16	Nervous System: Senses	Chapter 16
Tuesday	Nov. 17	Nervous System: Senses	Chapter 16
Wednesday	Nov. 18	Nervous System: Senses	Chapter 16
Friday	Nov. 20	Final Exam due by 11:59pm MST	Cumulative: Chapter 1-10; 12-16

Important Skills and Characteristics Expected of all BIOH461 Tutors:

SKILL	CHARACTERISTICS
1. Commitment to learning	Demonstrates a positive attitude (motivation) toward learning: identifies and locates appropriate resources; identifies need for further information; prioritizes information needs; welcomes and/or seeks new learning opportunities.
2. Interpersonal skills	Maintain a professional demeanor in all interactions; is non-judgmental about students' lifestyles; communicates with others in a respectful manner; assumes responsibility for own actions; respects cultural and personal differences of others; demonstrates acceptance of limited knowledge and experience; motivates others to achieve; approaches others in a professional manner to discuss differences in opinion.
3. Communication skills	Uses correct grammar, accurate spelling and expression; writes legibly; listens actively; communicates with others in a confident manner; recognizes impact of non-verbal communication and modifies accordingly, maintains open and constructive communication.
4. Effective use of time and resources	Focuses on tasks at hand; recognizes own resource limitations; uses existing resources effectively; uses unscheduled time efficiently; completes assignments in a timely fashion; sets up own schedule; coordinates schedule with others; demonstrates flexibility; plans ahead; sets priorities and recognizes when needed; performs multiple

	tasks simultaneously.
5. Use of constructive feedback	Demonstrates active listening skills; actively seeks feedback and help; demonstrates a positive attitude toward feedback; critiques own performance; maintain two-way information; assesses own performance accurately; develops plan of action in response to feedback; reconciles differences with sensitivity.
6. Problem solving	Recognizes problems; states problems clearly; describes known solutions to problem; analyzes and subdivides large questions into components; accepts that there may be more than one answer to a problem.
7. Professionalism	Abides by U of M Student Conduct Code; projects professional image; demonstrates accountability for personal and professional decisions; maintains confidentiality in all interactions.
8. Responsibility	Demonstrates dependability; demonstrates punctuality; follows through on commitments; accepts responsibility for action and outcomes; p[provides safe environment for students; recognizes own limits; offers and accepts help; completes projects without prompting.
9. Critical thinking	Raises relevant questions; considers all available information; articulates and formulates new ides; seeks alternative ideas; exhibits openness to contradictory ideas.
10. Stress management	Maintains professional demeanor in all situations; accepts constructive feedback; recognizes own stressors or problems; maintains balance between professional and personal life; demonstrates effective affective responses in all situations.