



**Professional Education Unit
MOREHEAD STATE UNIVERSITY
PROFESSIONAL EDUCATION UNIT
COLLEGE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF BIOLOGY AND CHEMISTRY
BIOLOGY 234 – Human Anatomy & Physiology I
DELIVERY METHOD – TRADITIONAL CLASSROOM
COURSE SYLLABUS – Spring 2012**

COURSE: BIOL 234. Human Anatomy & Physiology I (3-0-3) I, II, III.

TIME AND PLACE: Lect. 11:30-12:30 MWF1 in Lappin 130;

LECTURE PROFESSOR: David J. Eisenhour
OFFICE: 301F Lappin Hall
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EMAIL: d.eisenhour@morehead-st.edu
OFFICE HOURS: 10:20-11:20 MW; 1:50-2:50 TTh

COURSE DESCRIPTION: This course is a study of human tissues and organs systems (integumentary, nervous, skeletal, and muscular) with focus on the interrelationships of form and function. Homeostatic regulatory mechanisms will be continually emphasized. Not acceptable as credit for Biology Area Non-Teaching Option or Environmental Option or minor in Biology. *Prerequisite: composite ACT score of 19 or above, or BIOL 105, BIOL 160, or BIOL 171.*

Required Field Experience Hours: [0]

“Community Engagement: A Light to and from the Mountains”

The Professional Education Unit at Morehead State University delivers rigorous, high quality programs that prepare professionals informed by best national and international scholarship, plus research, literature, and experiences specific to Appalachia- preparing professionals to improve the schools, quality of life, and the communities in which they live and serve. This statement is not only the strategic mission for the College, but it also incorporates the conceptual framework that guides all our activities.

Conceptual Framework Outcomes (CFO's):

The Unit and the faculty within individual programs assess the degree to which its graduates:

- 1) Master the content knowledge, professional and the twenty – first century skills need to make an optimal contribution to “whole” student learning in education settings.
- 2) Are competent in the collection and use of data to inform decision – making and to demonstrate accountability for student learning.
- 3) Demonstrate professional dispositions
- 4) Are culturally competent and understand the regions from which they have come utilizing knowledge and experiences to effectively “bridge the gaps” (economic, achievement, and geographic) ensuring optimal learning for all students.
- 5) Engage in authentic field experiences in collaboration with committed school – based partners and are empowered to improve the quality of education throughout this region and beyond.

Course goal: The basic goal of this course to formulate an understanding of anatomical (including functions related to cellular, histological, and gross structures) and regulatory concepts (molecular and cellular), which is applied to understanding the mechanisms of homeostasis. Students will be expected to apply their comprehension of these concepts to technically evaluate what is read and observed, to solve/manage problems, and evaluate/interpret information in regard to medicine/health and physical performance.

Competencies: A basic theme is the development of an understanding of anatomical (including functions related to cellular, histological, and gross structures) and regulatory concepts (molecular and cellular), which is applied to understanding the mechanisms of homeostasis. This is then used to evaluate what is read and observed, to solve/manage problems, and evaluate/interpret information, in regard to medicine/health and physical performance. This constructivist philosophy theme emphasizes that learning is an active process. To be academically successful in the course each student must exhibit positive dispositions, by coming to class well prepared and skillfully managing available resources.

Student Learning Outcomes (SLOs) - Students will be expected to:

1. use thinking, writing & math skills to evaluate/interpret information, & solve/manage problems related to functional anatomy (organs, tissues, cells, molecules, and atoms) and physiology (homeostasis);
2. use their understanding of chemical/molecular and cellular activity in regard to homeostasis so they may evaluate/interpret what they read and observe in regard to human anatomy and physiology;
3. and use their understanding of homeostasis to interpret/evaluate information & solve/manage problems related to medicine/health and physical performance.

Course activities: Students will be asked to listen, think, and interact with the teacher in regard to course material presentations given by the teacher, take quizzes and exams which require thinking and writing skills, read assigned materials, interact with classmates to develop answers to questions/solve problems, and use computer technology.

Tutor/review sessions will be announced.

NCATE/ EPSB Accreditation Alignment of CFO's and SLO's:

Program: [Biology - teaching] [Human Anatomy and Physiology 1 BIOL 234]					
Aligned with→ Assessment→ (point values)	Kentucky Teacher Standards (KTS)	Kentucky Department of Education Core Content for Assessment (KDECCA)	Education Professional Standards Board (EPSB)	National Science Teachers Association (NSTA)	National Science Teacher Association – Teacher Content Knowledge
Lecture exams (500) CFO:1, 2 SLO: 1, 2, 3	1	SCHUDU6, S9, U1, S2	Literacy	1	A6, 8, 11
Lecture quizzes (150) CFO: 1, 2 SLO: 1, 2, 3	1	SCHUDU6, S9, U1, S2	Literacy	1	A6, 8, 11

Assignment Descriptions:

Program: BIOLOGY – SECONDARY TEACHING Human Anatomy & Physiology I (BIOL 234)	
Assessment (point value)	Description
Lecture exams (500)	Exams will assess content knowledge and conceptual understanding of the course material from lecture. Exams will be given during scheduled class time.
Lecture quizzes (150)	Lecture quizzes will assess content knowledge and conceptual understanding of the course material from lecture. Quizzes will be given during scheduled class time.

Grading Scale: Grades will be assigned on a % basis of 650 points.

		<u>Grading Scale</u>
Exam I	100pts	A = 90-100%
Exam II	100pts	B = 80-89.9%
Exam III	100pts	C = 70-79.9%
Exam IV	100 pts	D=60-69.9%
Comprehensive Final Exam	100pts	E≤ 59.9%
Quizzes (15 @ 10 pts each)	150pts	
	650pts	

The final exam will be given Friday, 11 May 2012, 10:15.

Written work on exams and quizzes will include assessment of critical thinking/problem-solving skills. Students must be prepared to address a question, using appropriate scientific vocabulary and explanations which focus on the “how” and “why” components which are relative to the question.

Tests and quizzes will contain multiple choice, matching, diagram, and short answer questions.

Required text: Principles of Anatomy & Physiology, 13 edition by Tortora & Derrickson, Wiley, 2012. ISBN:9780470565100.

Optional Materials:(1)WileyPLUS WEBSITE <http://edugen.wiley.com/edugen/class/cls191011/>

Attendance: Because classes are scheduled it is evident that attendance is important. Students are expected to attend all scheduled meetings of the class, on time. Attendance will not be taken (and thus not graded), but missed classes will almost certainly result in lower performance on quizzes and exams. To make-up a missed exam or quiz, a student must notify the professor within 24 hours (before the absence if possible) of the absence with a University-approved excuse to be eligible for any options (determined by the professor) available to the student in regard to make-up.

Classroom protocol:

Academic dishonesty may result in failure of the class. Note the section in the syllabus on academic dishonesty.

Cell Phones (including Blackberry’s and I phones), Walkie Talkie’s, PDA’s, and Beepers must be shut off upon entering the classroom. MP3 Players, iPOD’s or any other device requiring the use of headphones are not permitted during class. If these “go off” during class, the student may be asked to leave. If these are out during a test or quiz, it will be considered academic dishonesty and the student will be given a “zero” for that day.

If a student leaves early (e.g., after a quiz) the student will be give an “zero” for the most recent quiz.

Laptops and Tape recorders are permitted. It is a safety issue to have power cords running across the floor (it is your responsibility to have a fully charged battery). If you are discovered doing anything other than course related material on your laptop during class you may be asked to leave the class immediately and you will lose your privilege to bring your laptop to class.

Academic Dishonesty

Academic dishonesty may result in a “zero” for the assessment, failure of the class, or expulsion from the university. Cheating, fabrication, plagiarism or helping others to commit these acts will not be tolerated.

Academic dishonesty will result in severe disciplinary action (identified above) and notification of the Dean of Students. If you are not sure what constitutes academic dishonesty, read the Eagle: Student Handbook or ask your instructor. An example of plagiarism is copying information from the internet when appropriate credit is not given. The MSU policy is located at <http://moreheadstate.edu/units/studentlife/handbook/academicdishonesty.html>

e-mail: **ONLY MSU e-mail** is to be used for **all e-mail communications** between student and professor.

Use of technology: Students will be expected to use the internet, MSU e-mail, word processing, and any other appropriate technology (including Blackboard) needed to complete assignments. Blackboard and MSU email will be used to dispense course materials to students.

Disability statement: Any student with a validated accommodation for a validated disability should make an appointment to see me as soon as possible.

Americans with Disabilities Act (ADA)

In compliance with the ADA, all students with a documented disability are entitled to reasonable accommodations and services to support their academic success and safety. Though a request for services may be made at any time, services are best applied when they are requested at or before the start of the semester. To receive accommodations and services the student should immediately contact the **Disability Services Coordinator in Room 204E in the Student Activities Suite of the Adron Doran University Center**, 606-783-5188, www.moreheadstate.edu/acs/

Policy for Accommodating Students with Disabilities: Professional staff from MSU Academic Services Center (ASC) coordinates efforts to address accessibility needs and class accommodations with instructors of students who have learning or physical disabilities. Faculty will cooperate with the ASC staff to accommodate the needs of students taking departmental courses.

Campus Safety Statement:

Emergency response information will be discussed in class. Students should familiarize themselves with the nearest exit routes in the event evacuation becomes necessary. You should notify your instructor at the beginning of the semester if you have special needs or will require assistance during an emergency evacuation. Students should familiarize themselves with emergency response protocols at www.moreheadstate.edu/emergency.

Course Calendar: BIOL 234 (Human Anatomy & Physiology I)

Spring 2012 Tentative Daily Schedule

Course Content:

NOTE: Any changes in the syllabus will be announced by the professor.

Period	Topic(s)	Chapter
18 Jan	Introduction; Levels of organization; Homeostasis	1
20 Jan	Chemistry of life: molecular bonds, pH	2
23 Jan	Chemistry of life: biomolecules and enzymology	2
25 Jan	Cells: reproduction, protein synthesis, and plasma membranes	3
30 Jan	Cells: organelle anatomy and function`	3
1 Feb	Tissues:epithelial and connective	4
3 Feb	Tissues: muscular and nervous	4
6 Feb	Anatomical terminology	1
8 Feb	Exam I	
13 Feb	Integument	5
15 Feb	Bone tissue	6
17 Feb	Bone tissue	6
20 Feb	Axial skeleton	7
22 Feb	Axial skeleton	7
27 Feb	Appendicular skeleton	8
29 Feb	Appendicular skeleton	8
2 Mar	Bone review	
5 Mar	Exam II	
7 Mar	Muscle tissue: organization	10
12 Mar	Muscle tissue: contraction	10
14 Mar	Muscle tissue: contraction	10
16 Mar	Muscle tissue: metabolism	10

26 Mar	Joints; skeletal muscle actions	9, 10
28 Mar	Principle skeletal muscles	11
30 Mar	Principle skeletal muscles	11
2 Apr	Principle skeletal muscles	11
4 Apr	Exam III	
9 Apr	Nervous system tissue	12
11 Apr	Neural physiology: resting and action potentials	12
13 Apr	Neural physiology: impulse propagation	12
16 Apr	Neural physiology: synapses and neurotransmitters	12
18 Apr	Spinal cord functional anatomy; Meninges; Spinal nerves	13
23 Apr	Exam IV	
25 Apr	Autonomic nervous system	15
27 Apr	Cerebrospinal fluid; Brain functional anatomy	14
30 Apr	Brain functional anatomy	14
2 May	Sensory and motor integration	16
13 May	Final Exam (10:15)	