

Biology 2651 Human Anatomy/Physiology I

Biology Department, College of Arts and Sciences, Valdosta State University

Section A (CRN 80148), Section B (CRN 80149) and Section C (CRN 80150) (4 credit hours)

Fall Semester, 2015

Instructor - Dr. J. Mitchell Lockhart

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Office Hours: As posted or by appointment, typically 9-10AM Monday and Wednesday

Course hours: Lecture – Sections A, B and C: Tuesday and Thursday **11:00-12:15** BCB 1023

Lab – Section A: Monday **10:00-11:50**, Section B: Monday **12:00-1:50**; Section C:

Tuesday, **9:00-10:50 AM** - BCB 1203

Textbook - G.J. Tortora and B. Derrickson, *Principles of Anatomy and Physiology*, 14th Ed.

(Required)

Laboratory Textbook - M.E. Smith, and W.J. Loughry, *Laboratory Manual for Human Anatomy and Physiology*. **(Required)**

Course Description: This course is the first in a two part series. In BIOL 2651 we will introduce human anatomy and physiological principles with emphasis on the following: cell and tissue organization, plus skeletal, muscular, and nervous systems and special senses. In each system, we will cover the basic structure and function of the components of that system.

Pre-Requisite: None

Attendance: MANDATORY! I do keep track of who is and isn't attending lecture and laboratory. This course has a considerable amount of new concepts and terminology and it serves your best interest to attend class regularly. Any student disrupting the classroom and affecting the learning experience of others will be asked to leave. Along these lines, **NO** cell-phones, beepers, headphones, and/or associated earpieces are allowed either in the **lecture room or laboratory**. This includes viewing devices during class. Students are not permitted to leave the lecture or laboratory rooms to receive messages during regular course time. My policy is not to give a warning, rather, if a cell-phone or beeper activates during lecture/laboratory or you attempt to view or send messages, you will lose one **LETTER GRADE** from your final grade. Viewing a cell-phone or pager that activates on "silent" mode during a quiz or exam will be treated as an instance of **CHEATING** and handled accordingly (in addition to the above penalty). Those wishing to utilize laptop computers as part of the class are required to sit in the first 3 rows of the classroom. Viewing any material other than class material will result in the same penalties above. University guidelines dictate that students missing 20% of lecture sessions for this class are subject to receiving a grade of "F" regardless of their standing in the course.

Students With Documented Disabilities: Students requiring accommodations or modifications because of documented disabilities should discuss this need with Dr. Lockhart at the beginning of the quarter. Students not registered with Special Services Program must contact the Access Office for Students with Disabilities in Farber Hall. Their phone number is 245-2498.

Assessment: For the lecture grade, four exams (tentative) plus a comprehensive final will be given. Each exam will be worth 100 points. Questions will be based on material covered in lecture and in my notes. Exam questions will be in a variety of formats including (but not limited to) essay, short answer, multiple choice, fill in the blank, drawings, etc...Any questions concerning grading should be brought to the attention of the professor **NO LATER** than one week following return of the exam. I also will occasionally give unannounced quizzes to ensure that everyone is on time, attending class, and keeping up with lecture material. **NO make-up lecture exams or quizzes will be given for any reason.** Should you miss an exam FOR ANY REASON, you may take the comprehensive final to replace the missed exam grade.

For the laboratory grade, 4 lab practicals (tentative) will be given. The **Lab practicals cannot be made up. If a lab practical is missed, you will receive a zero for that lab grade.**

The final grade will be a combination of your final lecture score and laboratory score. Lecture will comprise 65% and lab will comprise 35% of your final score. The lecture final will be comprehensive and **OPTIONAL**. For those wishing to better their grade, this exam score will replace the lowest written exam score received during the semester.

Grade Scale: **90-100 = A, 80-89 = B, 70-79 = C, 60-69 = D, <60 = F**

Privacy Act: Because of the Buckley Amendment or Privacy Act, grades will not be discussed over the phone, via email, given to friends, or given to relatives. Final grades will be posted, only at your request, under an anonymous 6 digit number which you choose later in the semester.

Cheating: Refer to the Student Code of Ethics in the Valdosta State University Student Handbook. A student caught cheating will be penalized ranging from receiving a zero for that assignment or test to failing the class.

Important Dates: Mid-Term – October 8, **Final Exam – Wednesday, December 9 10:15-12:15**

*** The Instructor reserves the right to modify the above contents with proper notification.**

Course Outcomes:

Course:

By the end of BIOL 2651, students who successfully complete the course should have:

1. Gained factual knowledge, to include anatomy and physiological terminology, methods, and principles, about Anatomy and Physiology I. (DO – 2,3,5; VSUGEO – 5)
2. Learned fundamental principles, generalizations, or theories of Human Anatomy and Physiology I. (DO – 2,3,5; VSUGEO – 5)
3. Learned to apply course material (to improve thinking, problem-solving, and decisions) in Human Anatomy and Physiology I. (DO – 2,3,5; VSUGEO – 5)
4. Developed specific skills, competencies and points of view needed by professional in the fields most closely related to Anatomy and Physiology I. (DO – 2,3,5; VSUGEO – 5)
5. Acquired an interest in learning more by asking questions and seeking answers about Anatomy and Physiology I. (DO – 2,3,5; VSUGEO – 5)

Department:

1. Develop and test hypotheses, collect and analyze data, and present the results and conclusions in both written and oral formats used in peer-reviewed journals and at scientific meetings.
2. Describe the evolutionary processes responsible for biological diversity, explain the phylogenetic relationships among the major taxa of life, and provide illustrative examples.
3. Demonstrate an understanding of the cellular basis of life.
4. Relate the structure and the function of DNA/RNA to the development of form and function of the organism and to heredity.
5. Interpret ecological data pertaining to the behavior of the individual organism in its natural environment; to the structure and function of populations, communities, and ecosystems; and to human impacts on these systems and the environment.

Valdosta State University General Education Outcomes:

1. Students will demonstrate understanding of the society of the United States and its ideals. They will possess the requisite knowledge of the society of the United States, its ideals, and its functions to enable them to become informed and responsible citizens. They will understand the connections between the individual and society and the roles of social institutions. They will understand the

- structure and operational principles of the United States government and economic system. They will understand United States history and both the historical and present role of the United States in the world.
2. Students will demonstrate cross-cultural perspectives and knowledge of other societies. They will possess sufficient knowledge of various aspects of another culture, including the language, social and religious customs, aesthetic expression, geography, and intellectual and political history, to enable them to interact with individuals within that society from an informed perspective. They will possess an international viewpoint that will allow them to examine critically the culture of their own nation and to participate in global society.
 3. Students will use computer and information technology when appropriate. They will demonstrate knowledge of computer concepts and terminology. They will possess basic working knowledge of a computer operating system. They will be able to use at least two software tools, such as word processors, spreadsheets, database management systems, or statistical packages. They will be able to find information using computer searching tools.
 4. Students will express themselves clearly, logically, and precisely in writing and in speaking, and they will demonstrate competence in reading and listening. They will display the ability to write coherently in standard English; to speak well; to read, to understand, and to interpret the content of written materials in various disciplines; and to listen effectively and to understand different modes of communication.
 5. Students will demonstrate knowledge of scientific and mathematical principles and proficiency in laboratory practices. They will understand the basic concepts and principles underlying scientific methodology and be able to collect, analyze, and interpret data. They will learn a body of scientific knowledge and be able to judge the merits of arguments about scientific issues. They will be able to perform basic algebraic manipulations and to use fundamental algebraic concepts to solve word problems and equations. They will be able to use basic knowledge of statistics to interpret and to analyze data. They will be able to evaluate arguments based on quantitative data.
 6. Students will demonstrate knowledge of diverse cultural heritages in the arts, the humanities, and the social sciences. They will develop understanding of the relationships among the visual and performing arts, literature and languages, and history and the social sciences. Students will be versed in approaches appropriate to the study of those disciplines; they will identify and respond to a variety of aesthetic experiences and engage in critical thinking about diverse issues. They will be able to identify the components of and respond to aesthetic experiences in the visual and performing arts. They will develop knowledge of world literature within its historical and cultural frameworks. They will understand modern issues within a historical context and the role of the individual in various forms of societies and governments.
 7. Students will demonstrate the ability to analyze, to evaluate, and to make inferences from oral, written, and visual materials. They will be skilled in inquiry, logical reasoning, and critical analysis. They will be able to acquire and evaluate relevant information, analyze arguments, synthesize facts and information, and offer logical arguments leading to creative solutions to problems.
 8. Students will demonstrate knowledge of principles of ethics and their employment in the analysis and resolution of moral problems. They will recognize and understand issues in applied ethics. They will understand their own value systems in relation to other value systems. They will judge values and practices in a variety of disciplines.

BIOL 2651 Sections A, B, and C
Human Anatomy and Physiology I
Dr. J. Mitchell Lockhart

Tentative Lecture Outline - This is the order in which we will cover topics.

| TOPIC | TEXT CHAPTERS |
|--|----------------------|
| Introduction to the Human Body | 1 |
| Chemical Level of Organization | 2 |
| Cellular Level of Organization | 3 |
| Tissue Level of Organization | 4 |
| Integumentary System | 5 |
| Bone Tissue | 6 |
| Skeletal System: The Axial Skeleton | 7 |
| Skeletal System: The Appendicular Skeleton | 8 |
| Articulations | 9 |
| Muscle Tissue | 10 |
| Muscular System | 11 |
| Nervous Tissue | 12 |
| Spinal Cord and Spinal Nerves | 13 |
| Brain and Cranial Nerves | 14 |
| The Special Senses | 17 |
| Autonomic Nervous Systems | 15* |
| Sensory, Motor, and Integrative Systems | 16* |

Lecture Exams:

- 1 – September 8
- 2 – October 6
- 3 – November 3
- 4 – December 4

Exam schedule subject to change

Final Exam:

Lecture – Wednesday, December 9, 10:15-12:15

Tentative Lab Schedule - This is the order in which we will cover topics.

| Week of | TOPIC | CHAPTERS |
|----------------|--|-----------------|
| 1 August 17 | No labs this week | |
| 2 August 24 | Microscope and Cells, Tissues and Skin | 1, 2, 4 |
| 3 August 31 | Tissues and Skin | 4 |
| 4 September 7 | No labs this week, Labor Day | |
| 5 September 14 | LAB PRACTICAL I | |
| 6 September 21 | Skeletal System | 5 |
| 7 September 28 | Skeletal System | 5 |
| 8 October 5 | LAB PRACTICAL II | |
| 9 October 12 | No labs this week, Fall Break | |
| 10 October 19 | Muscular System | 6 |
| 11 October 26 | Muscular System | 6 |
| 12 November 2 | LAB PRACTICAL III | |
| 13 November 9 | Brain dissection | 7 |
| 14 November 16 | Eye dissection | 8 |
| 15 November 23 | LAB PRACTICAL IV? | |
| 16 November 30 | LAB PRACTICAL IV? | |
