

**Biology 2401 – Sections A4**  
**Blinn College – Bryan Campus**  
**Course Information Sheet**  
**Fall 2010**

**Instructor:** David R. Bridges, D.C.  
**Office:** S 117  
**Phone:** 979-209-7572  
**Phone:** 361-782-1800 (cell)

**Office Hours:** 3:00 – 4:00 PM MW  
**email:** [david.bridges@blinn.edu](mailto:david.bridges@blinn.edu)  
**email:** [dbridgesykc@yahoo.com](mailto:dbridgesykc@yahoo.com)

**Course Description: Biology 2401 – Anatomy and Physiology I** Principles of structure and function of the human body. Anatomy and Physiology I is the first course in a 2 semester sequence which examines the systems of the human body using an integrated approach. The chemistry of life provides a foundation to investigate the major organ systems of the body. The areas of study include structure and function of cells, histology, the physiological and anatomical aspects of support and movement systems and the nervous system. Prerequisite: Biol 1406 or approval of the division chair on the relevant campus. Chem 1407 or 1411 are recommended. Three class hours and three laboratory hours per week. Credit: Four semester hours.

**Core Curriculum Course:** This is a course in the 42-hour Core Curriculum of Blinn College. As such, students will develop proficiency in appropriate intellectual competencies, exemplary educational objectives and general perspectives. The URL of the Blinn College core curriculum web site is: [www.blinn.edu/corecurriculum](http://www.blinn.edu/corecurriculum).

**Course Objectives and Student Learning Outcomes:**

These learning outcomes and course objectives will include the student demonstrating competence in the following areas:

- Explain the principle of complementarity of structure and function
- Describe homeostasis and feedback mechanisms
- Use correct anatomical terms to describe the human body
- Explain the major molecular structures basic to life
- Describe the anatomy and physiology of cells
- Compare the structures and functions of major tissue types
- Explain the integumentary system histology and function, including repair, cancer, and thermoregulation
- Describe the anatomy and physiology of bone
- Explain the process of ossification and calcification
- Describe articulation structures and movements
- Explain the sequence of events during muscle contraction, and properly identify human muscles
- Describe neural physiology, and components of the central and peripheral nervous systems

**Required Textbooks and other materials:**

- *Anatomy & Physiology – The Unity of Form and Function*, Saladin, 5<sup>th</sup> ed. McGraw/Hill
- *Laboratory Manual for Human Anatomy and Physiology*, cat version, Terry R. Martin, McGraw/Hill
- *Anatomy Revealed, 2.0* CD-ROM Available through McGraw Hill, and packaged together with text and lab book in Blinn's bookstore.
- McGraw/Hill Connect online access card
- **Forum** I have set up a Yahoo class group forum for outside of class discussions and information. It will be in your interest to participate in this forum. I will not answer general class questions through private email correspondence. That is the purpose of the discussion forum. It is limited to members only. You may request membership by going to <http://tech.groups.yahoo.com/group/drbridgesblinn/>

- **Connect McGraw-Hill** has homework assignments for extra points [http://connect.mcgraw-hill.com/class/d\\_bridges\\_a4\\_fall\\_2010](http://connect.mcgraw-hill.com/class/d_bridges_a4_fall_2010). You can collect up to 80 extra points by completing the chapter assignments before the deadlines. The Online Learning Center for our text is <http://www.mhhe.com/saladin5>. These are the only extra points available.

### Description of Course Content and Tentative Class Schedule: Fall 2010

Date	Text	Topic	Lab	Lab Topic
Mon 8/30	1	PRE-TEST, Course Info, Major Themes of A&P	1	Lab Safety Scientific Method, Measurements
Wed 9/1	1	Major Themes of A&P	2	Body Organization and Terminology
Mon 9/6	2	Chemistry of Life	3	Chemistry of Life
Wed 9/8	3	Cellular Form & Function	4 5	Microscope – Care and Use Cell Structure and Function
Mon 9/13	4	Genetics & Cellular Function	6	Movements Through Cell Membranes
Wed 9/15	4	Genetics & Cellular Function	7	Cell Cycle
Mon 9/20	5	Histology	8	Epithelial Tissues
Wed 9/22	5	Histology	9	Connective Tissues <b>Review Quiz 1</b>
Mon 9/27		REVIEW 1-5	10	Muscle and Nervous Tissues
Wed 9/29		<b>Exam 1 Ch 1-5</b> <b>Short Answer Exam 1</b>	11	Integumentary System
		<b>Section 1 Total</b>		<b>167/167</b>
Mon 10/4	6	Integumentary System	12 13	Bone Structure and Classification Skeleton Organization
Wed 10/6	7	Bone Tissue	14 15	Skull Vertebral Column and Thoracic Cage <b>Lab Activity 1</b>
Mon 10/11	8	Skeletal System	16 17	Pectoral Girdle and Upper Limb Pelvic Girdle and Lower Limb <b>Lab Activity 2</b>
Wed 10/13	9	Joints	18 19	Fetal Skeleton Joint Structure & Movements <b>Review Quiz 2</b>
Mon 10/18		REVIEW 6-9		<b>Lab Practical 1</b>
Wed 10/20		<b>Exam 2: Ch 6-9</b> <b>Short Answer Exam 2</b>	20	Skeletal Muscle Structure
		<b>Section 2 Total</b>		<b>275/442</b>
Mon 10/25	10	Muscular System	22 23	Muscles of the Head, and Neck Muscles of the Chest, Shoulder and Upper Limb <b>Lab Activity 3</b>
Wed 10/27	10	Muscular System	24	Muscles of the Deep Back, Abdominal Wall, and Pelvic Outlet <b>Lab Activity 4</b>
Mon 11/1	11	Muscular Tissue	25	Muscles of the Hip and Lower Limb <b>Lab Activity 5</b>
Wed 11/3	12	Nervous Tissue	26 62	Surface Anatomy Cat Dissection <b>Review Quiz 3</b>
Mon 11/8	12	Nervous Tissue	27	Nerve Tissue and Nerves
Wed 11/10		REVIEW 10-12	28	Meninges and Spinal Cord
Mon 11/15		<b>Exam 3: Ch 10-12</b> <b>Short Answer Exam 3</b>		

		<b>Section 3 Total</b>		<b>179/621</b>
Wed 11/17	13	Spinal Cord, Nerves & Reflexes	29	Reflex Arc and Reflexes
Mon 11/22	13	Spinal Cord, Nerves & Reflexes	30 32	Brain & Cranial nerves Sheep Brain Dissection <b>Lab Activity 6</b>
Mon 11/29	14	Brain & Cranial Nerves	33	General Senses
Wed 12/1	14	Brain & Cranial Nerves		<b>Review Quiz 4</b>
Mon 12/6	15	Autonomic Nervous System & Visceral Reflexes		<b>Lab Practical 2</b>
Wed 12/8		<b>Short Answer Exam 4</b> REVIEW 13-15		REVIEW 1-15
		<b>Section 4 Total</b>		<b>179/800</b>
Fri 12/10 or Mon 12/15		<b>Final Exam Comprehensive</b>		<b>200/1000</b>

### **Class Policies:**

**Attendance:** The College District believes that class attendance is essential for student success; therefore, students are required to attend all their classes promptly and regularly. Each class meeting builds the foundation for subsequent class meetings. Without full participation and regular attendance, students will find themselves at a disadvantage for achieving success in college. Class participation constitutes 20 percent of the final course grade.

If a student has one week's worth of unexcused absences during the semester, the student will receive an email by the College requiring contact with the instructor and schedule a conference immediately to discuss attendance issues. If the student accumulates two week's worth of unexcused absences, the student will be administratively withdrawn from the class.

There are only four forms of excused absence officially recognized by the institution:

(1) Observance of religious holy days: The student must notify the instructor in writing not later than the 15<sup>th</sup> day of the semester concerning the specific date(s) that the student will be absent for any religious holy day(s); (2) Representing Blinn College or other educational institution at an official function; (3) Official involvement in a high school activity for "dual credit" students; (4) Military service obligations.

Other excuses should be documented by email to the instructor. These should be submitted as soon as possible. Excuses submitted before class time may require no proof. Excuses submitted after class time will require increasingly more substantiation.

Missing **lecture** or **lab** counts as one absence.

**Dropping:** If a student chooses to drop the course, it is that student's responsibility to complete a drop order at the Office of Enrollment Services. Failure to do so will result in a grade of F in the course. The last day to withdraw with a "W " is **Friday, November 19<sup>th</sup>**.

**Eating and drinking** are not allowed during class or laboratory work.

**Cell telephones** are to be turned off in the classroom. Cell phone use during an exam will be interpreted as cheating.

**Dishonesty Statement:** Blinn College does not tolerate cheating, plagiarism or other acts of dishonesty. Definitions of these acts and procedures for dealing with them are described in "Scholastic Dishonesty" in the Blinn College Student Handbook, copies of which are available at the information desk in the administration building.

**Civility Statement:** Members of the Blinn College community are expected to act honestly and responsibly in all aspects of campus life. Blinn College holds all members accountable for their actions and words. Therefore, all members should commit themselves to behave in a manner that recognizes personal respect and demonstrates concern for the personal dignity, rights, and freedoms of every member of the College community, including respect for College property and the physical and intellectual property of others. Civility applies to attire as well as language and behavior. Please dress appropriately for the academic classroom and laboratory.

**If a student is asked to leave the classroom because of uncivil behavior, the student may not return to that class until he or she arranges a conference with the instructor. It is the student's responsibility to arrange for this conference.**

**ADA Policy:** Reasonable accommodations for students with documented learning or physical disabilities will be made upon presentation of an official request by the student. An official request form is supplied and completed by the Office of Disability Services (ODS) located in the College Park Center Administration Building. The URL is <http://www.blinn.edu/disability.htm>. Accommodation is not retroactive from the time of concluding agreement for accommodation.

**Problem Resolution:** If you have a complaint about your class, you should first request a conference with your instructor to try and resolve the problems or issues. If the problems or issues cannot be resolved at the instructor level, you should request a conference with the Division Chair, Mr. Dwight Bohlmeyer, Science 241, [dbohlmeyer@blinn.edu](mailto:dbohlmeyer@blinn.edu).

The above requirements and policies are discussed more fully in the **Blinn College Student Handbook** which, by reference, is incorporated into this information. Please obtain and read.

**Safety** is always important in science. We will be using expensive equipment and preserved specimens. Be aware of those around you, especially during dissection. If you are pregnant, or become pregnant during the semester, please let me know; formaldehyde is a teratogen, and is used in preservation of specimens. Respect all specimens; even the dead ones.

**Point Distribution:**

32 Lab reports	64 points
6 Lab activities	36 points
4 Review quizzes	100 points
2 Lab practical exams	200 points
3 Lecture exams	240 points
4 Short Answer exams	160 points
Comprehensive final exam	200 points
<b>TOTAL POSSIBLE</b>	<b>1000 points</b>

**Criteria for Grading:**

Your final grade is based on 1000 points.

Points	Grade	Points	Grade	Points	Grade	Points	Grade	Points	Grade
<594	F	595-694	D	695-794	C	795-894	B	895+	A

- **Lab Reports** are to be completed prior to and during lab hours. It is your responsibility to have me check your lab report before exiting the lab. Credit for lab reports is received during lab hours, on the day of the lab. These are class participation points, available only to those attending lab. There is no make-up for absent students.

- **Lab Activities** are open note, group review questions, dissections, etc. These are class participation points, available only to those attending lab. These cannot be made up after class. There is no make-up for absent students.
- **Review Quizzes** are open note, group review questions, quizzes, etc. These are class participation points, available only to those attending class. These cannot be made up after class. There is no make-up for absent students.
- **Lab Practical Exams** consist of 50 multiple choice questions in 25 stations. If you request, you may partially make up a missed lab practical for an excused absence. Stations that require set up will be omitted. The deadline for make ups will be Thursday of the week you return to class.
- **Lecture Exams** consist of 40 multiple choice questions based on the text, assigned reading, and lecture content. If you request, you may make up a missed exam for an excused absence. You will have additional study time, so expect the make up exam to be more challenging. The deadline for make ups will be Thursday of the week you return to class.
- **Short Answer Exams** consist of 2 to 4 subjective questions based on the text, assigned reading, and lecture content. If you request, you may make up a missed exam for an excused absence. You will have additional study time, so expect the make up exam to be more challenging. The deadline for make ups will be Thursday of the week you return to class.
- **Comprehensive Final Exam** consists of 100 multiple choice questions.

**My opinion:** This is a **tough, competitive** class! You have a ton of information to comprehend. The best way to study for this class is to 1) **read** the book. 2) **work** the labs. 3) use as many **reviews** as possible, including an effective study group, online study guides, especially <http://www.mhhe.com/saladin5> and <http://connect.mcgraw-hill.com>

**Ask** questions. Come by to review during **office hours**. I will cover material quickly in lecture. Many of you may need more time to digest the information. My office hours are your time to use me as a **tutor** to help you understand the material. I am available outside of my posted office hours by appointment. Tutoring is also available through Blinn Learning Center.