COLLIN COLLEGE DISTRICT
LABORATORY SECTION SYLLABUS

COURSE NUMBER: BIOL 2401

COURSE TITLE: Anatomy and Physiology I

COURSE DESCRIPTION

The lab provides a hands-on learning experience for exploration of human system components and basic physiology. Systems to be studied include integumentary, skeletal, muscular, nervous, and special senses.

COURSE CREDIT HOURS: 4
Lecture Hours: 3
Lab Hours: 4

PLACEMENT ASSESSMENT(S): Placement in ENGL 1301; MATH 0310; College-Level Reading

PRE-REQUISITE Satisfactory score on the BIOL 2401 Readiness Test. We strongly recommend that you successfully complete BIOL 1406 as a means of preparing for this assessment test.

CO-REQUISITE: BIOL 2401 Lecture

REPEAT POLICY: See Student Handbook

CAMPUS SECURITY: In case of emergency, contact Campus Police

COURSE RESOURCES

Required: Human Anatomy and Physiology Laboratory Manual (cat version), current edition, by Elaine N. Marieb and Lori A. Smith

Recommended: Pearson My Lab and Mastering, publishing as Pearson Benjamin Cummings
Medical dictionary (Taber's, Dorland's, Stedman's, etc.)

SUPPLIES

Required: Safety goggles (required during lab); Dissecting kit; Surgical or exam gloves

Recommended: Surgical or dust mask; Lab coat or apron; Loose-leaf notebook to keep lab reports and handouts; Colored pencils or markers

STUDENT LEARNING OUTCOMES

- **State-mandated Outcomes:** Upon successful completion of this course, students will:
  1. Apply appropriate safety and ethical standards.
  2. Locate and identify anatomical structures.
  3. Appropriately utilize laboratory equipment, such as microscopes, dissection tools, general lab ware, physiology data acquisition systems, and virtual simulations.
  4. Work collaboratively to perform experiments.
  5. Demonstrate the steps involved in the scientific method.
  6. Communicate results of scientific investigations, analyze data and formulate conclusions.
  7. Use critical thinking and scientific problem-solving skills, including, but not limited to, inferring, integrating, synthesizing, and summarizing, to make decisions, recommendations, and predictions.
- **Additional Collin Outcomes:**
  1. Work within groups to identify and describe the major gross anatomy and microscopic components to make informed decisions on location, organization, structure, and function. (Teamwork)
  2. Work individually or within groups to analyze and explain the functional and physiological roles of applicable body systems including endocrine system, circulatory system, lymphatic and immune systems, respiratory system, digestive system, urinary system, fluid/electrolyte and acid/base (pH) balances, reproductive system, development and inheritance. (Critical Thinking Skills)
  3. Communicate knowledge of the above body systems through scientific papers, lab reports, discussions, and/or presentations. (Communication Skills)
  4. Utilize scientific tools and laboratory equipment to collect and analyze data. (Empirical and Quantitative Skills)
  5. Qualitatively and quantitatively investigate and describe homeostatic mechanisms of these body systems (Empirical and Quantitative Skills)
  6. Analyze and describe the reasoning processes applied to scientific investigation and thinking integrating all body systems. (Critical Thinking Skills

METHOD OF EVALUATION

The laboratory will have three comprehensive practical examinations, in addition to lab quizzes and formal typed lab reports. All students are required to actively participate in laboratory experiments and dissections. Students who simply observe the work of others will not receive credit for that laboratory assignment.

Lab: 3 required practical exams - 20% each
Quizzes (8 minimum required) - 20% of lab
Lab reports (2 minimum required in a scientific format) - 20% of lab

The offering of bonus / extra points is optional. If given the maximum point values are:
Maximum 1 point per 10 point lab quiz

Maximum 5 points per 100 point lab practical
Maximum 0 points (no extra / bonus) per lab report

Bonus / extra points are neither acceptable nor available to add to the final course grade.

ATTENDANCE

Laboratory attendance is mandatory. **Lab make-ups are only possible the week of the lab** and the student must have permission to attend another appropriate lab. If a student misses one of the practical exams, they must make-up the exam in accordance with the instructor's addendum. Instructors cannot count one practical exam grade twice. Contact your instructor immediately if you fail to take one of the practical exams. If you do not drop in accordance with the Collin College Academic Calendar, a course grade of "F" will be assigned.

AMERICANS WITH DISABILITIES ACT

Collin College will adhere to all applicable federal, state and local laws, regulations and guidelines with respect to providing reasonable accommodations as required to afford equal opportunity. It is the student's responsibility to contact the ACCESS office in a timely manner to arrange for appropriate accommodations. See the current *Collin Student Handbook* for additional information.

COLLIN COLLEGE ACADEMIC POLICIES: See the current *Collin Student Handbook* and instructor addendum.

Every member of the Collin College community is expected to maintain the highest standards of academic integrity. Collin College may initiate disciplinary proceedings against a student accused of scholastic dishonesty. Scholastic dishonesty includes, but is not limited to, statements, acts, or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work material that is not one's own. Scholastic dishonesty may involve, but is not limited to, one or more of the following acts: cheating, plagiarism, collusion, use of annotated texts or teacher's editions, use of information about exams posted on the Internet or electronic medium, and/or falsifying academic records. While specific examples are listed below, this is not an exhaustive list and scholastic dishonesty may encompass other conduct, including any conduct through electronic or computerized means.

Plagiarism is the use of an author's words or ideas as if they were one's own without giving credit to the source, including, but not limited to, failure to acknowledge a direct quotation.

Cheating is the willful giving or receiving of information in an unauthorized manner during an examination; collaborating with another student during an examination without authority; using, buying, selling, soliciting, stealing, or otherwise obtaining course assignments and/or examination questions in advance; copying computer or Internet files; using someone else's work for assignments as if it were one's own; or any other dishonest means of attempting to fulfill the requirements of a course.

Collusion is intentionally or unintentionally aiding or attempting to aid another in an act of scholastic dishonesty, including but not limited to, failing to secure academic work; providing a paper or project to another student; providing an inappropriate level of assistance; communicating answers to a classmate about an examination or any other course assignment; removing tests or answer sheets from a test site; and allowing a classmate to copy answers. In cases where an incident report has been filed for alleged violation of scholastic dishonesty, faculty are requested to delay posting a grade, for the academic work in question, until the Dean of Students Office renders an administrative decision of the case. Students found responsible for scholastic dishonesty offenses will receive an authorized disciplinary penalty from the Dean of Students Office. The student may also receive an academic penalty in the course where the scholastic dishonesty took place. The professor will determine the appropriate academic penalty.

STUDENT CONDUCT

Collin College expects students to conduct themselves in class in such a way as to not interfere with or disrupt the educational process. Students are to speak and act in a respectful manner toward their fellow students and the professor. Those who participate in inappropriate behavior such as, excessive talking, cell phone or pager use, verbal altercations, or blatantly disregarding instructor's directions will be asked to leave the class. Continuance of such behavior can result in permanent removal.

LATERAL TRANSFERS

Lateral transfers will not be granted after the 4th week of class or after the first lecture exam, whichever comes first. Exceptions to this are for documented changes in work schedule and family emergencies. If a student does transfer to another section, all previous grades will accompany the student. However, the new instructor can require the student to retake any exam or quiz. For questions concerning this policy, contact the Associate Dean in the appropriate Academic Affairs Office.

WITHDRAWAL POLICY: See the current *Collin Registration Guide* for the last day to withdraw.

LAB POLICIES AND PROCEDURES

No eating or drinking of any kind is allowed in the lab. Proper dress is required at all times. This includes no open toed shoes. An instructor has the right to ask a student that is improperly dressed to leave the lab or modify how they are dressed. See the current *Science Lab Procedures; Safety and Techniques* handout.

IF YOU HAVE DIFFICULTIES

First see or call your instructor. If you are unable to resolve the problem, contact the appropriate Academic Affairs Office at that campus.

INSTRUCTOR SYLLABUS / ADDENDUM

Please read and review regarding specific course information, schedule, and contact information.
http://faculty.collin.edu/mweis
Or use the provided links in Canvas for Concourse Syllabus

BIOLOGY 2401 - ANATOMY & PHYSIOLOGY I
PROPOSED DISTRICT LABORATORY SCHEDULE

WEEK	LABORATORY TOPICS	LAB MANUAL EXERCISES
1	Orientation, Protocol, Safety, Microscope, Anatomical Orientation, and Terminology	Handouts, Ex. 1 – 5, 46
	Embryology (through gastrulation), Epithelial Tissues	Ex. 44, 6
2	Connective Tissues: CT Proper	Ex. 6
	Connective Tissues: Supportive, Fluid, Special	Ex 6
3	Muscle Tissue, Nervous Tissue	Ex. 6
	Membranes, Integumentary System	Ex. 6, 7
4	Integumentary System	Ex. 7
	Lab Practical Review	
5	**Lab Practical I**	
	Nervous Tissue, Neurophysiology	Ex. 15
6	Spinal Cord, Spinal Nerves	Ex. 19, ADI tutorial
	Brain, Cranial Nerves	Ex. 17
7	Brain Dissection, EEG	Ex. 17, 18 (ADI EEG)
	Special Senses: Eye and Eye Dissection	Ex. 23, 24
8	Special Senses: Ear	Ex. 25
	Special Senses: Smell, Taste; General Senses	Ex. 26, 22
	Last Day to Withdraw	
9	ANS, Human Reflexes	Ex. 20, 21
	Lab Practical Review	
10	**Lab Practical II**	
	Skeletal Tissue, Fetal Skeleton, Terminology, Skull	Ex. 8, 9
11	Axial Skeleton, Appendicular Skeleton	Ex. 9, 10
	Appendicular Skeleton	Ex. 10
12	Articulation	Ex. 11
	Muscle Tissue, Muscle Physiology Muscles (Human & Cat)	Ex. 12, DE 1
13	Muscles (Human & Cat)	Ex. 13, DE 1
	Muscles (Human & Cat)	
14	Muscles (Human & Cat)	Ex. 13, DE 1
	Muscles (Human & Cat)	Ex. 13, DE 1
15	Lab Practical Review	
	Lab Practical III	