

LAB LOCATION: Jones Hall 301

Course Mode of Delivery: This course is a face to face course with accessible on-line content via Canvas which includes Labster simulations, Tests, and Quizzes (both face to face and online).

1 – Professor: Dr. Adrian T, McCollum (adrian.mccollum@famuedu) **Class days and time:** Mon. 2:30 – 5:00 pm

Office Zoom Link: 9997476248 (Office Location 511 Jones Hall) **Telephone:** (850) – 412-5059

Office Hours: T, Th & F (11:00 am – 12:00 pm) (Please contact me first before visiting)

2 – Required Text book: Human Anatomy and Physiology Lab Manual-Cat Version, by E.N. Marieb, Pearson/Benjamin Cummings, latest edition is available at bookstore.*Bring your text book to every class: it will be an essential reference.

Also recommended: Human Anatomy and Physiology, by E.N. Marieb, Pearson/Benjamin Cummings, 7th, 8th, 9th, or 10th edition, latest edition is available in bookstore

3 – Course Description: This survey laboratory is the first course in a two-semester sequence designed for students majoring in the Allied Health Sciences, Nursing, Physical Education and the selected Natural Science Programs. It includes a study of the structure and function of the Integumentary, Skeletal, Muscular and Nervous systems with introductory lectures on the chemistry of the cell, tissues and membranes, tissue fluid and movement of substances across the cell membrane.

Students will work in groups of four to five during lab experiments and cat dissections. Please read and become familiar with the laboratory safety procedures outlined on the cover of the lab book.

4 – Expected Learning Outcomes: A student who successfully completes this course will be able to:

- Define or describe the general terms, structures and concepts associated with each of the major topics discussed (listed below under Lab Objectives)
 - This outcome will be assessed by examinations and quizzes in the laboratory.
- Demonstrate subject connection to other disciplines and the application of class information to the real world.
 - This outcome will be assessed by examinations and quizzes in the laboratory.
- Be able to analyze and interpret data, and critically interpret scientific information.
 - This outcome will be assessed by examinations in lecture and laboratory. Also case studies, data interpretation will be included on worksheets and lab exercises.
- Demonstrate collaboration with fellow classmates
 - This outcome will be assessed by performance in the laboratory

5-BSC 2093-LABORATORY SCHEDULE (schedule is tentative and subject to change if necessary):

THE WEEK OF	LAB TOPIC	LAB EXERCISE
Aug – 22	Language of Anatomy and Organ Systems Overview	Exc.1 AND 2
Aug – 29	The Cell: Anatomy and Division	Exc. 4
Aug – 29	Classification of Tissues and Covering and Lining Membranes	Exc. 6 and 8
Sep – 12	Test One (Excs. 1,2,4,6,8)	Test 1
Sep – 19	The Integumentary System, Overview Skeleton: Classification and Structure Bones/Cartilage	Exc. 7 and Exc. 9
Sep –26, Oct - 03, 10	The Axial Skeleton and Appendicular Skeleton, Articulations and Body Movements	Exc. 10, 11, and 13
Oct – 17	Test Two (Excs. 7,9,10,11, 13)	Test 2
Oct – 24	Microscopic Anatomy and Organization of Skeletal Muscle	Exc. 14
Oct –24,31 Nov – 7	Gross Anatomy of Muscular System	Exc. 1 and 15 Dissection
Nov –14	Test Three (Excs. . 1,14,15,)	Test 3
Nov –21	Histology of the Nervous Tissue and Gross Anatomy of the Brain and Cranial Nerves, Spinal Cord, Spinal Nerves, and ANS & Human Reflex Physiology	Exc. 17, 19, 21 and 22
Nov –28	Test Four (Excs.. 17,19,21,22)	Test 4

- **Holiday where there is no class: Labor Day 9-5-2022**

6 – BSC 2093 Lab Objectives

TEST 1

Language of Anatomy and Organ Systems Overview

1. Know list of selected anatomical terminology.
2. Describe the levels of structural organization that compose the human body.
3. Describe several planes that may be passed through the human body and explain how sections are made.
4. Know how to label body cavities and name their contents.
5. Know how to label body regions and quadrants.

The Cell: Anatomy and Division

6. List the parts of a generalized cell.
7. List the functions of each part of the cell.

Classification of Tissues and Covering and Lining Membranes

8. List the types of tissues.
9. Describe the general features of epithelial tissue.
10. Explain how covering and lining epithelium is classified.
11. Explain how connective tissue is classified.
12. Describe how muscle tissue is classified.
13. Describe how nervous tissue is classified.

TEST 2

The Integumentary System

14. Know the structure of the integument

Overview Skeleton: Classification and Structure Bones/Cartilage

15. Describe the microscopic structure of compact and spongy bone.

The Axial Skeleton and Appendicular Skeleton

16. Know the difference between axial and appendicular skeleton.
17. Know the bones (and selected markings) of the axial skeleton.
18. Know the bones (and selected markings) of the appendicular skeleton.

Articulations and Body Movements

19. Define an articulation (joint) and describe how the structure of an articulation determines its function.
20. Describe the structure of a typical synarthrosis and give examples.
21. Describe the structure of a typical amphiarthrosis and give examples.
22. Describe the structure of a typical diarthrosis.
23. Describe the types of diarthroses and the movements that occur at each.
24. Describe several special movements that occur at diarthroses.

TEST 3

Microscopic Anatomy and Organization of Skeletal Muscle

25. Describe the structure and function of smooth muscle tissue.
26. Describe the structure and function of cardiac muscle tissue.
27. Describe the connective tissue components, blood and nerve supply, and histology of skeletal muscle tissue.

Gross Anatomy of Muscular System

28. Name and give the origin, insertion, and action of selected muscles.

TEST 4

Histology of the Nervous Tissue

29. Describe the organization of the nervous system.

Gross Anatomy of the Brain and Cranial Nerves

30. Describe how the brain is protected and supplied with blood.
31. Name the principal parts of the brain and explain the function of each part.

Spinal Cord, Spinal Nerves, and ANS & Human Reflex Physiology

32. Describe how the spinal cord is protected.
33. Describe the structure and function of the spinal cord.
34. Describe spinal nerves.
35. Explain selected reflex arcs.

7 – Grades: Your overall grade will be determined by the following activities listed below. There is a **Cumulative make up exam** given at the end of the semester for any missed exams. You must have an excuse for any missed exams. Speak with your instructor the **before the test or the week of the test** if you need to miss a scheduled test.

	POINTS	Score (%)	Score (Pts)	Letter Grade
Quizzes and Lab Assignments	80			
Labster Simulation	60			
Lab Exam 1	80			A: >90% (414 - 460)
Lab Exam 2	80			B: >80% (368 - 413)
Lab Exam 3	80			C: >70% (322 - 367)
Lab Exam 4 (Final Exam)	80			D: >60% (276 - 321)
Total Possible Points =	460 (=100%)			F: <59% (< 276)

8 – FAMU Academic Learning Compact: This course provides a component of the FAMU FAMOUS ALC based on the link <https://www.famu.edu/administration/strategic-planning-analysis-and-institutional-effectiveness/university-assessment/pdf/ALCpoliciesandproceduresRevisedSpring2007.pdf> This course uses exams, quizzes, and Labster simulations to assess student learning outcomes associated with ALC (i) content/discipline knowledge and skills and (iii) critical thinking skills.

A WRITTEN COMPREHENSIVE MAKEUP EXAM will be given to students who miss an exam because of an emergency. The student must present a valid excuse bearing the original signature of the Dean of his/her school or division. In addition, original documentation of why you were absent should also be presented i.e. a funeral program or signed doctor's slip with all contact information. No duplicate copies will be accepted. Excuses bearing two different typefaces and/or incorrect dates may be rejected. The date for the makeup exam will need to be scheduled for the week of finals. Students should make every effort to not miss the scheduled makeup. If you miss two exams, the make-up will count twice. More than two exams missed will lead to an automatic "F". If a student arrives in class after a quiz has begun, he/she will only be allowed the remaining time to start and finish the quiz. ****** NO MAKEUPS FOR LAB QUIZZES****** Makeup exams and change in grade will not be given after a semester grade has been submitted other than in cases where an "I" has been reported.

9 – Attendance: All labs are mandatory. You must arrive in lab on time, remain the entire lab periods, and not be disruptive.

10 – Late/Make-up work: Student Labster Simulations and On-line quizzes, once open for students to participate in, will be open until the last day of finals week, **Friday 12-9-2022, at 6:00 pm.**

Withdrawals and Retroactive Withdrawal

The last day to with draw from a course or the university is **November 4th, 2022.** Instructors will not sign retroactive withdrawal forms for students who are failing and have no excuse or reason for failing the class.

11 – Professionalism-- Students are expected to act in a professional manner in dealing with all matters pertaining to this course. **We will not tolerate cheating**, so please plan on receiving a zero for any assignment / exam in which you choose not to act in a professional manner, in addition a grade of "F" in the course will be assigned, and a report to the Office of the Dean will be submitted. Whenever another person's written work is utilized, whether it is a single phrase or longer, quotation marks must be used and sources cited. Paraphrasing another's work, i.e., borrowing the ideas or concepts and putting them into one's "own" words, must also be acknowledged.

12 – Other Lab Policies and Lab Safety:

- Cell phones should be turned off when you are in lab.
- Eating, drinking, and chewing gum are expressly forbidden and **ABSOLUTELY NOT** allowed in the laboratory. If you have water bottles, keep them in your bags; they cannot be sitting on the lab benches.
- Be prepared to work when you arrive at the laboratory. Familiarize yourself with the lab procedures before beginning the lab. For group work each student should interpret data and answer questions separately unless directed otherwise.
- Carefully follow directions, both written and oral. Do only the steps described in the procedure of the experiment or that are described and/or approved by the teacher. If you are in doubt about any procedure, ask your teacher for help.
- Clothing should be appropriate for working in the lab. Jackets, ties, and other loose garments should be removed. Ideally, dress for lab should include long pants and shoes which cover the entire foot.
- Do not taste, touch, or smell any reagents unless directed to do so by your teacher. When smelling chemicals or gases, use a wafting motion to direct the odor toward your nose.
- Keep flammable and combustible materials away from open flames. Some examples of flammable materials include alcohol, carbon disulfide, and acetone.

13 – Special Needs - if you have special needs as addressed by the Americans with Disabilities Act (ADA) and need assistance please do not hesitate to contact me. Additionally, if you have special needs regarding exams, you may contact the Learning Development and Evaluation Center, (850) 599-3180, for assistance.

14 – Department of Biological Sciences Procedure for Resolving Student-Faculty Conflicts - The Department of Biological Sciences has the following procedure in place with aim to resolve student-faculty conflicts. Application of these procedures is part of the department's commitment to be in line with University's Moto of "Excellence with Caring".

- It is suggested that the student who has a specific conflict first discuss his/her concern with the instructor in question during office hours.
- In an event where the student cannot resolve the concern with the instructor, the student should submit a detailed written statement of the problem to the department Chairperson.
- The Chairperson will discuss the student's complaint with the instructor.
- The instructor shall provide a written response to the Chairperson.
- If deemed necessary, the Chairperson will arrange a meeting with both the instructor and student.
- If either party feels the conflict is still unresolved, the Chairperson will forward response/recommendation to the Dean's office.

15 – Policy Statement on Non-Discrimination

It is the policy of Florida Agricultural and Mechanical University to assure that each member of the University community be permitted to work or attend classes in an environment free from any form of discrimination including race, religion, color, age, disability, sex, marital status, national origin, veteran status and sexual harassment as prohibited by state and federal statutes. This shall include applicants for admission to the University and employment.

16 – Academic Honor Policy Statement

Florida A&M University is committed to academic honesty and its core values, which include scholarship, excellence, accountability, integrity, fairness, respect, and ethics. These core values are integrated into this academic honesty policy. Being unaware of the Academic Honesty Policy is not a defense for violations of academic honesty. Additional detail on FAMU Academic Honesty Violations are provided in the University Policy 2.012 (10.)(s). If you have any questions, please see your Academic Advisor.

17 – University Americans with Disabilities Act (ADA) Statement

The Florida A&M University Americans with Disabilities Act (ADA) Policy Statement states that “Individuals who need a reasonable accommodation must notify the Office of Equal Opportunity Programs at 599-3076.” It is the responsibility of the FAMU Equal Opportunity Programs (EOP) Office, through the ADA Coordinator, to ensure the Florida A&M University is in compliance with the Americans with Disabilities Act. If you have any questions, please contact your Academic Advisor or the University EOP Officer, Equal Opportunity Programs, 674 Gamble Street, Tallahassee, FL 32307, (850) 599-3076.