Eastfield College
STEM
Biology 2401-43570
Anatomy and Physiology I
Standard Course Syllabus

Class Time and Location:
- Lecture: Room N-237
- Lab: Room S-301

Instructor:
- Name: James Arnold
- Location: [Instructor's location]
- Office Hours: [Office hours]
- Office Phone: [Office phone]
- E-mail Address: jamesarnold@dcccd.ed

Course Description (4 Credit Hours):
- TCCNS: BIOL 2401: Anatomy and Physiology I 2014 Core Curriculum Foundational Component Area: 030 Life and Physical Sciences
- This course examines cell structure and function, tissues, and the skeletal, muscular, and nervous systems. Emphasis is on structure, function, and the interrelationships of the human systems. This is a transferable course intended for those seeking to complete a Bachelor's Degree. (3 Lec., 3 Lab.)

Coordinating Board Academic Approval Number 26.0707.51 03
- Study of the structure and function of human anatomy, including the neuroendocrine, integumentary, musculoskeletal, digestive, urinary, reproductive, respiratory, and circulatory systems. Content may be either integrated or specialized.

Prerequisites:
- Biology 1406 or SCIT 1407. One of the following must be met: (1) Developmental Reading 0093 AND Developmental Writing 0093; (2) English as a Second Language (ESOL) 0044 AND 0054; or (3) have met Texas Success Initiative (TSI) in Reading and Writing standards AND DCCCD Writing score prerequisite requirement.

Textbooks:
- A. Required:

Core Objectives:
- BIOL 2401 develops the following Core Objectives:
  - Critical Thinking—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
• **Communication** - to include effective development, interpretation and expression of ideas through written, oral and visual communication.

• **Empirical and Quantitative Skills** - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

• **Teamwork** - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

**Core Objective Development Statements:** BIOL 2401 develops **Critical Thinking** and **Empirical and Quantitative Skills** by requiring students to research, analyze and interpret data derived from an experimental setting and drawing a well-informed conclusion of the data through the application of sound biological concepts.

Examples: research paper, case studies, lab report

BIOL 2401 develops **Teamwork** and **Communication** by requiring students to effectively work in a small group on an assigned problem, exercise or course concept that will then be presented in a written, oral or visual format.

Examples: lab experiment, group teaching of course topic, case study, group research project

**Student Learning Outcomes:**

Upon successful completion of this course, students will:

1. To understand the scope of the course and to develop a basic working vocabulary applicable to the study of anatomy and physiology.
2. To understand the concept of physiological homeostasis and apply homeostatic mechanisms to various processes that occur in the body.
3. To demonstrate knowledge of the nature and fundamental structure of all matter and apply that knowledge to the structure and interactions between chemical substances found in biological matter.
4. To demonstrate knowledge of what cells are, how they function, how they synthesize proteins, and how they divide.
5. To survey the fundamental tissue groups that combine to form the human body, to understand how tissues are classified as membranes, and to understand the formation of endocrine and exocrine glands.
6. To demonstrate knowledge of the anatomy and physiology of the integumentary system.
7. To demonstrate knowledge anatomy and physiology of the skeletal system.
8. To demonstrate knowledge of the physiology of muscle contractions and become familiar with the names, locations, and functions of the major muscles.
9. To demonstrate knowledge of the organization of the nervous system and the physiology of nerve impulse conduction.
10. To understand the basic physiology of the senses.

**Evaluation Procedures:**

**Exams**

3 Major lecture exams* – 100 points each = 300 points
3 Laboratory exams – 100 points each = 300 points
1 Team Case Study – 100 points
Lecture Exams consist of matching, true/false, multiple choice, matching, labeling, essay and short answer essay.

Laboratory Exams consist of fill-in-the-blank. There will NOT be a word bank. Open lab times are posted outside of the lab door. There are also models located at the circulation desk in the library.

*Make – up Exams

A comprehensive final will be given for lecture exam missed.

If a laboratory practical is missed, you will receive a grade of ZERO for the exam. There are no make-up laboratory practicals.

Suggested Final grade

<table>
<thead>
<tr>
<th>Points</th>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>630 – 700pts</td>
<td>90 – 100%</td>
<td>A</td>
</tr>
<tr>
<td>560 – 629pts</td>
<td>80 – 89%</td>
<td>B</td>
</tr>
<tr>
<td>490 – 559pts</td>
<td>70 – 79%</td>
<td>C</td>
</tr>
<tr>
<td>420 – 489pts</td>
<td>60 – 69%</td>
<td>D</td>
</tr>
<tr>
<td>0 - 419</td>
<td>0 - 59%</td>
<td>F</td>
</tr>
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Course Outline:

Dates | Topic | Chapters
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The Human Body: An Orientation | 1
Chemistry Comes Alive | 2
Cells: The Living Units | 3
Tissue: The Living Fabric | 4
The Integumentary System | 5
LAB EXAM #1
LECTURE EXAM #1

Bones and Skeletal Tissues | 6
The Skeleton | 7
Joints | 8
Muscles and Muscle Tissue | 9
The Muscular System | 10
LAB EXAM #2
LECTURE EXAM #2

LAST DAY TO WITHDRAW
Nervous System and Nervous Tissue | 11
The Central Nervous System | 12
Peripheral Nervous System and Reflex Activity | 13
The Autonomic Nervous System | 14
The Special Senses | 15
LAB EXAM #3
LECTURE EXAM #3
**Attendance Policy:**

There are no make-up classes for laboratory exercises that are missed. You cannot attend another laboratory with another instructor to make-up the work.

**Withdrawal Policy:**

If you are unable to complete this course, it is your responsibility to withdraw formally. The withdrawal request must be received in the Registrar’s Office by 05/01/18. Failure to do so will result in your receiving a performance grade, usually an “F.” If you drop a class or withdraw from the college before the official drop/withdrawal deadline, you will receive a “W” (Withdraw) in each class dropped. For more information about drop deadlines, refer to the current printed Credit Class Schedule, contact the Admissions/Registrar’s Office at 972-860-7167 (Room C119), or contact the division office.

If you drop a class via eConnect, make sure to print a copy of the confirmation and keep the copy. In the event of a discrepancy it will be the responsibility of the student to provide documentation of having dropped the class.

**Classroom Etiquette:**

You are all adults I expect to behave as such. Raise your hand to talk. You must agree to disagree in class discussions. Participation is not an option. Clean up after yourselves. Be courteous and respectful to all present.

**Institutional Policies and Services**

Institutional Policies relating to this course can be accessed from the following link:


The instructor reserves the right to amend this syllabus as necessary.