SCHOOL OF STEM SYLLABUS

TERM:

INSTRUCTOR:

COURSE CODE: BIO-111

OFFICE HOURS:

COURSE TITLE: Anatomy & Physiology I

OFFICE LOCATION:

DAY(S) AND TIME(S):

EMAIL:

LOCATION:

PHONE:

COURSE PREREQUISITE: Exit Academic Foundations English & Math

CREDITS: 4

COURSE DESCRIPTION:
In this course students will learn the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

STUDENT LEARNING OUTCOMES:
Upon completion of this course students will be able to:

1. Define anatomy and physiology & describe homeostasis importance for living systems.
2. Analyze and apply the scientific method in the laboratory experiments.
3. Identify the structural organization of the body, the anatomical positions, body cavities & the organ systems
4. Define all chemical elements and explain chemical interactions between the elements and compounds.
5. Compare the major tissue types in the body from the cellular to the system levels
6. Describe the integumentary system organs structures & functions
7. Differentiate the structure of cartilages & bones with their locations in the body
8. Differentiate between three types of muscular tissue, muscle cell contraction, name and location of the major muscles of the human body
9. Describe the structural and functional classifications of the nervous system, the brain & special senses
10. Distinguish the structures of the skeletal, muscular and nervous system in laboratory experiments using animal specimens and laboratory models
11. Analyze disorders associated with each of the discussed systems.

TEXTBOOK AND SUPPLEMENTAL MATERIALS:

TEXT: Human anatomy & physiology. 11th or 12 editions. Elaine N.Marieb & Katja Hoehn
ISBN:978-0134807409

LAB MANUAL: Human anatomy & physiology. 11th or 12 editions. Elaine N.Marieb & Katja

GRADING POLICY:

2 Lecture Exams	10% each
2 Lab Exams	10% each
Midterm	20%
Lab Reports	15%
Final Comprehensive Exam	25%

Lab reports are due one week after each experiment

Lab Format: Unless indicated otherwise, each laboratory exercise is set up for team of four-five students. Each student on the team is to participate in every aspect of the lab exercise. After each exercise, a formal lab report is handed in for grading. The lab reports are written (word processed) individually, not as a team, and handed in during the next lab session. You are required, by department policy, to follow all safety procedures. Each lab team is responsible for cleaning up their work area after every lab.

SAMPLE COURSE SCHEDULE:

Week	LECTURE	Laboratory	SOL
1st	Introduction to the course Scientific Method –Homeostasis – Organizational levels of life – Anatomical terminology	Introduction to the lab	1,2
2nd	Chemical level of Organization the chemistry of living organisms -	Chemistry lab	3,4

3rd	Cellular Level of Organization	Microscope survey of different cells	4
4th	Tissue Level of Organization	Dissection of fetal pig	4,5
5th	The Integumentary System	Microscope survey of skin slides	5,6
6th	Tissue and Bone Structure	Skeletal lab	7
7th	**Midterm Exam**	Practical Exam I	1,2,3,4,5, 6
8th	The Skeleton	Skeletal lab	7,10,11
9th	Articulations	Joint lab	7,10,11
10th	Skeletal Muscle Tissue	Muscular lab	8,10,11
11th	The Muscular System	Muscular lab	8,10,11
12th	Neural and the Spinal Cord		9,10,11
13th	The Brain and Cranial Nerves	Dissection of the Brain	9,10,11
14th	The Peripheral & Autonomic Nervous Systems The Special Senses	Lab on Senses, eye dissection	9,10,11
15th	**Comprehensive Final Exam**	**Practical Exam II**	**1-11**

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