SCHOOL OF STEM SYLLABUS

TERM:

INSTRUCTOR:

COURSE CODE: BIO-230

OFFICE HOURS:

COURSE TITLE: Histology

OFFICE LOCATION:

DAY(S) AND TIME(S):

EMAIL:

LOCATION:

PHONE:

COURSE PREREQUISITE: BIO-116 OR BIO-211

CREDITS: 4

COURSE DESCRIPTION:
Histology is a four credit course with a laboratory component. In this course, students will recognize the structure and function of cells, tissues, and organs at a microscopic level. They will also identify and recognize all of the major cell and tissue types of the human body. Histology is somewhat different than other biology courses; histology is a laboratory course and lectures often take the form of slide demonstrations. The lab and lecture will be combined into a single learning experience.

STUDENT LEARNING OUTCOMES:

Upon completion of this course students will be able to:

1. Distinguish the organization and structure of cells, tissues, and organs.
2. Identify the major epithelia (simple squamous, simple cuboidal, simple columnar, and stratified squamous), and know their locations and functions within the body.
3. Describe and identify the major forms of the connective tissue.
4. Describe the microscopic anatomy of compact and cancellous bone and the development stages from cartilage to bone tissue.
5. Describe and identify the typical nerve cell body (nucleus, nissl bodies and axon hillock).
6. Describe the organization and structure of PNS & CNS
7. Describe and differentiate the three major muscle tissue types (skeletal, smooth and cardiac) and identify the locations for each type of the muscular tissue within the body.
8. Describe and differentiate the microscopic structures between the arteries, veins and capillaries, and their relation to the heart. Describe the microscopic anatomy of the heart walls and valves.
9. Describe the structure of blood and differentiate the plasma, red blood cells, platelets, and lymph. Differentiate between the leukocytes by staining, nucleus, size, and relative abundance.

10. Describe the microscopic structure of the lymphoid tissue
11. Describe the microscopic structure and organization of the digestive tract.
12. Describe the structure and functions of the pancreas and the liver as digestive glands.
13. Describe the respiratory tract microscopic structures.
14. Describe the microscopic anatomy and functions of the endocrine system (Pituitary, Pancreas, Thyroid, Parathyroid, and Adrenal glands).

TEXTBOOK AND SUPPLEMENTAL MATERIALS:

Anthony L. Mescher. (2018) Junqeira's Basic Histology Text & Atlas. 15th Ed. McGraw Hill Education. ISBN:978-1-260-02617-7

GRADING POLICY:

Two Lecture Exams	20 points
Three Practical Exams	30 points
Final Comprehensive Exam	20 points
Lab Portfolio	30 points

Attendance & Make Up Exams. Students are expected to follow attendance guidelines as presented in the syllabus provided by the instructor. However, in case of an emergency or illness, students are advised to notify their instructor or counselor immediately. The instructor will determine the validity of the absence. The exceptions to instructor discretion exist when members of armed forces are called for training or assignment or any case where students are legally required to be elsewhere. Pending the submission of appropriate documentation reasonable accommodations for make-up work shall be provided, and in accordance with guidelines included in the syllabus. Make up exams will be given only in extenuating circumstances. It is your responsibility to let me know that you missed an exam. All make up exams are more difficult than the original.

COURSE REQUIREMENTS. Attendance, punctuality and participation are required. Students missing more than 2 classes may receive a filing grade. Cell phones should be turned off in the classroom.

SAMPLE COURSE SCHEDULE:

Week		**Lab**
1	Introduction to Histology Proscope & MICROSCOPE	
2	Histology techniques	Slides

3	The Cell and cycle	Slides
4	Epithelium tissue	slides
5	Connective Tissue	Slides
6	**Lecture exam I**	**Lab Practical I**
7	Cartilage & Bone	Slides
8	Muscular	Slides
9	Muscular	Slides
10	**Lecture exam II**	**Lab Practical II**
11	Nervous	Slides
12	Cardiovascular	Slides
13	Endocrine tissue	
14	**Lab Portfolio due**	**Practical III**
15	**Final exam**	Slides

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https://www.hccc.edu/administration/academic-affairs/syllabus-addendum.html