Virginia State University
Department of Biology
School of Engineering, Science, & Technology

Biol 315-01/ & Biol 315-02 **(Human Anatomy**); Lecture ~ *3 Sem Hrs,*

Instructor: **Dr. D. Sen** **2**00 Agriculture Engineering Ph: 524-6793 Fax: 524-5785

Human Anatomy has been designed to introduce and guide students in developing an understanding and an appreciation for the structures and form of the human body. The discussion of function gives a better understanding of anatomical concepts. The course is geared to students in arts, business, education, physical education, psychology, sociology and other health-related programs.

Purpose:

The useful information concerning the structure and function of the body has the potential to affect every aspect of lives. There have never been greater opportunities for employment in applied health-related fields, from nursing to sports training, from dietetics to occupational safety. To succeed in this course, students must develop a large technical vocabulary and retain a large volume of detailed information. Anatomy students must develop their capacity for critical thinking and concept integration. These skills are for everyone, not only for those pursuing careers in the health sciences.

Objective

To understand the level of organization of the human body
To study the structures and functions of the living system
To compare and describe various structural components of the body
To gain understanding of interactions of systems
To analyze and interpret the characteristics of life
To develop an understanding of medically-related terminologies
To realize that terms mostly derived from Latin

Text:

~ by Hole's Essentials of Human Anatomy & Physiology. ISBN 0 07 235118 7 McGraw Hill Publ. Co.

References:

~Essentials of Anatomy & Physiology by Martini & Bartholomew. ISBN 0-13-400144-3. Prentice Hall Publ. Co.
~Human Anatomy by Marieb and Mallatt. ISBN 0-8053-4068-8.Benjamin Cummings Publ. Co.

Course Outline (Lecture)

Anatomical Terminologies
Body Planes & Cavities
Directional Terms & Regional Terms
levels of Organization and Taxonomy
The Cell: Structures & Functions
The Tissues:
Connective Tissue, Muscle Tissue, Epithelial Tissue; Nervous Tissue
The Integumentary System
The Muscular System
The Cardio Vascular System (CVS)
The Digestive System
The Nervous System
Special project: DNA/Gene/Transgenic Organis/Gene Therapy

HUMAN ANATOMY *(Biol 315-01 & 315-02)*

SCHEDULE **Spring 2004**

Instructor: **Dr. D. Sen** 524-6793 P 200 Agriculture Engineering Bldg.

Office Hrs. M 9-12 F 9-12

January	13	Introduction
	15	Anatomical Terms
	20	Regional terms; Directional terms; Anatomical Terms (Contd.)
	22	Quardrants; Body Planes; Body Cavities
	27	Review
	29	**Test** (Anatomical Terms etc.)
February	3	Cell Structures
	5	Cell Functions; Cell Division (Mitosis)
	10	Movements across cell; Cross word puzzle
	12	Review
	17	**Test:** The cell
	19	Muscle Tissues & Fine Structure; Epithelial Tissue
	20	Nervous Tissue
	24	Connective Tissue
	26	Integument (Skin Tissue)
March	2	Review & Discussion
	4	**Test Midterm**
	7-14	SPRING BREAK
	16	Skeletal System: Kinds of bones, Classification
	18	Bone formation & Bone markings
	23	Skeletal System: Numbers and distribution of bones
`	25	Appendicular Skeleton/ Axial Skeleton
	30	**Test:** Skeletal System
April	1	Fine structures of muscle; Joints and Movements
	6	Muscles of the Head and Neck
	8	Muscles of the Upper Upper and Lower Extremitiesular
	13	Review
	15	**Test**: Muscular system; Joints & Movements
	20	CardioVascular System: Heart; Blood vessels; Conduction
	22	CVS: General and Systemic Circulation
		Final Examination (CVS)
		Nervous System (Home Work)

Special Topic: Genetic Engineering; Gene Therapy; Stem Cell; Gene Grafting; Genetically Engineered Plants or Animals; Transgenic Animals (See the sample papers prepared by students)

SCHEDULE

Anatomy Lab Biol 315-10/11 Spring 2004

200 AEB Instructor: D SEN 524-6793
Office Hrs: M 9-12 F 9-12

January	14/15	Introduction
	21/22	Microscope: Parts of Microscope; Functional units; Magnification. Blood (Vascular Tissue; DLC) Metric System
	28/29	Mouse Dissection
February	4/5	Cell: Structure and function
	11/12	Test (Microscope; Blood; Cell; Metric System)
	18/19	Tissues: Epithelial tissue; Muscle tissue; Connective tissue; Nervous tissue
	25/26	Pig Dissection
March	3 / 4	Test (Tissues)
	10/11	*Spring Break*
	17/18	Skeletal System; Joints and Movements
	24/25	CardioVascular System (CVS)
	31	CVS and Skeletal System , Joints and Movements (Contd.)
April	1	CVS and Skeletal System, Joints and Movements (Contd.)
	7/8	Test: Skeletal System; Joints and Movements; CVS
	14/15	Muscular System
	21/22	Final Examination: Muscular System

graded according to the standard scale
100% -90%-----A; 89% - 80%-----B; 79% - 70%-----C; 69% - 60%-----D; 59% & below------F

Regardless the points value of the examination or quiz, the total number of points will be converted to the above scale