COURSE OUTLINE OF RECORD

Number: BIOL G219  TITLE: Human Anatomy Discussion

ORIGINATOR: Annamaria Crescimanno  EFF TERM: Fall 2016
FORMERLY KNOWN AS:

CROSS LISTED COURSE:

SEMESTER UNITS: 1.0
HRS LEC: 18.0  HRS LAB: 0.0  HRS OTHER: 0.0
CONTACT HRS TOTAL: 18.0
STUDY NON-CONTACT HRS RECOMMENDED: 36.0

CATALOG DESCRIPTION:
This discussion course affords students enrolled in BIOL G220, Human Anatomy, the opportunity to develop background information, problem solving, extend discussion and exchange ideas concerning human structure. Discussion focuses on anatomical components and other key topics covered in BIOL G220 as well as background information not generally covered in lecture. Designed to help students succeed in their study of human anatomy.

JUSTIFICATION FOR COURSE:

PREREQUISITES:

COREQUISITES:
- BIOL G220: Human Anatomy

ADVISORIES:

ASSIGNED DISCIPLINES:
- Biological sciences

MATERIAL FEE: Yes [ ] No [X] Amount: $0.00
CREDIT STATUS: Noncredit [ ] Credit - Degree Applicable [X]  Credit - Not Degree Applicable [ ]
GRADING POLICY: Pass/No Pass [X]  Standard Letter [ ]  Not Graded [ ]  Satisfactory Progress [ ]
OPEN ENTRY/OPEN EXIT: Yes [ ] No [X]
TRANSFER STATUS: CSU Transferable[ ]  UC/CSU Transferable[X]  Not Transferable[ ]
BASIC SKILLS STATUS: Yes [ ] No [X]  LEVELS BELOW TRANSFER: Not Applicable
CALIFORNIA CLASSIFICATION CODES: Y - Not Applicable
NON CREDIT COURSE CATEGORY: Y - Not applicable, Credit Course
OCCUPATIONAL (SAM) CODE: E
REPEATABLE ACCORDING TO STATE GUIDELINES: No [X]  Yes [ ] NUMBER REPEATS:
REQUIRED FOR DEGREE OR CERTIFICATE: No [X] Yes [ ]

GE AND TRANSFER REQUIREMENTS MET:

COURSE LEVEL STUDENT LEARNING OUTCOME(S) Supported by this course:
1. Describe and explain major anatomical structures involved in organ system integration/homeostasis.

2. Develop and practice skills that will improve student involvement in the classroom, knowledge attainment from lecture and reading material, and overall success in Biology G 220 Human Anatomy.

3. Explain anatomical concepts such as (but not limited to):
   · Hierarchy of organization in the human body
   · Structures involved in the movement of substances within the body (cellular level and higher)
   · Bone Development & Fracture Repair
   · Identification of microstructures involved in muscle contraction
   · Anatomical changes that occur from fetal development to adulthood
   · Cranial Nerve Anatomical Pathways
   · Structures involved in a Reflex Arc

4. Name and identify the basic structures of the human body

5. Place a structure of anatomical significance in proper orientation (location) for normal body function, so that structure location will become second nature as they study physiology (function) in the second (follow-up) course.

COURSE OBJECTIVES:
1. Define and use the basic terminology used in descriptive human anatomy
2. Identify the basic parts of a cell
3. Describe the function of the basic parts of a cell
4. Describe the anatomy of various tissues
5. Explain the function and structure of the human skin
6. Give examples of lever type present in the human body
7. Identify and describe the three types of muscle tissue
8. Correctly identify major structures in the heart
9. Identify the cells present in normal human blood
10. Describe the path of blood flow through the heart
11. Distinguish between arteries, veins, arterioles, venules, and capillaries at both the gross and microscopic levels
12. Identify the major structures of the respiratory system
13. Identify the major tissue layers of the digestive system
14. Explain the function of fetal circulation
15. Demonstrate a working knowledge of the kidney at the gross and microscopic level
16. Explain the function of the hepatic portal system
17. Explain the function of the nephron
18. Identify the major structures of the female reproductive tract and describe each structure’s function
19. Identify the major structures of the male reproductive tract and describe each structure’s function
20. Describe the products and functions of the major glands of the endocrine system
21. Demonstrate a knowledge of the location and anatomy of the major glands of the endocrine system
22. Identify each student’s learning style(s)
23. Identify and create learning and study techniques/skills for students

COURSE CONTENT:
LECTURE CONTENT:
The Biology G 219 course includes the same basic topics as Biology G 220; however this course emphasizes development of important background information, anatomy study skills and techniques, and practice and drill in anatomy. Topics covered include:

I. Basic concepts necessary for BIO 220
   A. Finding your learning style quizzes: Anatomy study techniques for inside of the classroom and outside of the classroom for various learner types.
   B. Expectations of study time and preparedness for course

II. Introduction to Body Organization:
   A. Levels of organismal organization
   B. Methods for study of body organization

III. Cell structure and Function:
   A. Structural features of cells
   B. Cell membrane and transportation

IV. Histology
   A. Use of the Microscope
   B. Organization of tissues
   C. Methods for the study of tissues

V. The Skin as an organ
   A. Hierarchy of organization and emergent properties of skin cells, tissue, organ, organ system
   B. Function of the skin

VI. Joints
   A. Understanding basic levers
   B. Bones and joints as levers
   C. Structure of the joints

VII. The Muscular System
   A. Structure and organization of muscle fiber proteins
   B. Structure and function of the muscles

VIII. The Peripheral and Central Nervous Systems
   A. Structure and function of nerve cells
      1. The action potential
      2. Synapses
   B. Anatomy of the nervous system
   C. Functional divisions of the nervous system

IX. The Circulatory System
   A. Approaches to the study of the circulation
   B. Formed elements of Blood
   C. The Heart
      1. Blood pressure
      2. Blood flow
   D. Vessels
X. The Lungs and Gas Transport Systems
A. Structure and function of the airways
B. Structure and function of the alveoli

XI. The Digestive System
A. Structure and function of the alimentary canal
B. Digestive Accessory Organs

XII. The Kidneys, ureters, bladder and urethra
A. Structure and function of the nephron
B. Urinary Reflex

XIII. Male and Female Reproductive anatomy
A. Structure and function of the male reproductive tract
B. Structure and function of the female reproductive tract

XIV. Endocrine System
A. Hypothalamus anatomy
B. Applying anatomical understanding to positive and negative feedback loops

METHODS OF INSTRUCTION:

A. Lecture:

INSTRUCTIONAL TECHNIQUES:

This course will be used in two different ways:

1. It will give instructors the opportunity to dive further into more complicated material with students and
2. It will be used as an opportunity to help students gain important study skills to utilize inside and outside of the classroom based on each student's learning style. The content covered in Bio G 200 and Bio G 219 will serve as material students can use develop and practice these methods.

COURSE ASSIGNMENTS:

Reading Assignments
1. Typical Reading Assignments: Reading from the course textbook is required for every lecture period.

2. Typical Oral Assignments: Informal or formal presentations and participation in discussions

Out-of-class Assignments
1. Small projects involving the creation and completion of study material.
2. Typical Writing Assignments: Essay preparations and creative writing assignments.

Writing Assignments
1. Typical Writing Assignments: Essay preparations for lecture (Bio G 220) and creative writing assignments involving a red blood cell's journey through the heart and food's journey through the digestive system.
METHODS OF STUDENT EVALUATION:
- Short Quizzes
- Written Assignments
- Essay Examinations
- Projects (ind/group)
- Problem Solving Exercises
- Oral Presentations

Demonstration of Critical Thinking:
- Students may be required to:
  1. Identify ways in which structure relates to function
  2. Identify problems that may result from structural abnormalities
  3. Compare and contrast the ways in which different systems function to maintain homeostasis

Required Writing, Problem Solving, Skills Demonstration:
- 1. Writing Assignments: Short answers, written assignments, Other:
  Students will be evaluated for their ability to demonstrate knowledge of human anatomy concepts and applications with written assignments, term papers, or reports.

- 2. Problem Solving Demonstrations: Quizes, homework problems, other:
  Students will be evaluated on their ability to relate physiological function with anatomical form.

- 3. Skills Demonstration: Class Performance, other:
  Students will be evaluated on their ability to analyze human anatomy concepts and applications with in-class quizzes and in-class discussion.

TEXTS, READINGS, AND RESOURCES:
- TextBooks:

LIBRARY:
- Adequate library resources include:
- Comments:
- Attachments:
  - Attached Files