Stony Brook University  
School of Health, Technology and Management  
Health Science Program  
Spring 2013

HAN 200: Human Anatomy and Physiology for Health Sciences I (4 credits)  
Lecture Day/Time: Tuesday 9:30 AM – 12:30 PM  
Lecture Professor: Donna Crapanzano, MPH, RPA-C  
E-mail: Messages via Blackboard  
Lab Day/Time: Online 2 hours weekly; 1 time a 30 minute in person session  
Office: Level 2, SHTM, Room 440A  
Phone: 631-444-6187  
Office hours: Tuesday 12:30 – 1:30 & Wednesday 10 - 12 PM or by appointment

Course Description:  
This is the first course in a two-part sequence that introduces the study of human anatomy and physiology at cell, tissue, and organ system levels of organization, with particular emphasis on understanding disease processes associated with systems. Laboratory sessions entail virtual online exercises designed to illustrate principles learned and computer simulated processes and dissection in physiology and anatomy. (P/NC grade option is not available)

Goal:  
To provide a basic foundation in human anatomy and physiology for the student majoring in the health science’s or pursuing a clinical based degree.

Behavioral Objectives: Upon completion of this course, students will be able to:  
1. Distinguish between directional terms in relation to the positioning of the body, identifying body positions, surfaces, planes and sections.  
2. Describe the hierarchical structure of organization starting from atoms to organisms.  
3. Describe the structural and functional aspects of organic molecules (proteins, carbohydrates, lipids and nucleic acids) which constitute the human body.  
4. Explain the properties of cell membranes and identify its role in disease processes.  
5. Describe the basic mechanisms of cell division, cell death and cell proliferation and the impact on disease processes.  
6. Differentiate between simple and compound tissue architecture and identify the location of tissues in the body and their functions.  
7. Compare various types of connective tissue and describe their functions.  
8. Explain the process of wound healing, in terms of repair, regeneration and damage.  
9. Draw the structural organization of skin in relation to its function and homeostasis.  
10. Summarize different types of bones and the function of bones in maintaining posture as well as in other body functions.  
11. Label the components and then the differences between the axial and appendicular skeleton.  
12. List the classification of different joints, their location and function.  
13. Construct a list of disease processes of joints.  
14. Identify the gross and microscopic anatomy of skeletal, smooth and cardiac muscle.
15. Describe the molecular mechanisms of muscle contraction.
16. Discuss the importance of lever systems in human physiology.
17. Describe the concept of synaptic plasticity, structure and organization of the nervous system.
18. Explain the principles behind resting membrane potential, signal generation and synaptic transmission.
19. List neurotransmitters and define their function in signal generation and transmission.
20. Describe the function of meninges, cerebrospinal fluid, and blood brain barrier and list associated diseases.
21. Explain the structure and function of central, peripheral and autonomic nervous system and their associated nerves.
22. Explain the physiology of the stimulus-response reflex arc and the physiology of neuromuscular junction.
23. Construct a list of the structures associated with olfaction, audition, gestation and vision.
24. Describe homeostatic imbalances associated with olfaction, audition, gestation and vision.
25. Explain the relationship between senses and orientation and balance.

Required Text with Mastering A&P:
Choice 1. ISBN # 9780321799753 - loose-leaf version with online access or
Choice 2. ISBN #: 9780321696397 - hardcover textbook with online access

Required Readings: 3 journal articles to be posted on Blackboard

Required Equipment:
Clicker – see bookstore or TLT website for correct one.

Teaching Strategies:
Lecture format with student discussion, Response system, Virtual Human Anatomy & Physiology Lab, activities including case studies, videos & models

Virtual lab is asynchronous format and all laboratory work must be done independently.

Evaluation:
- Three written exams (equally weighted): 65%
  - Lecture Material 50%
  - Lab Material 15%
- Three journal article reviews 5%
- Class Participation/ Discussion Board: 5%
- Lab Orientation 5%
- Virtual lab activities: 20%
Complete the required 10 physiology and anatomy activities weekly by the due dates. All steps for the lab activity (labs have variable steps) must be completed and correct to earn full credit for the lab activity. Each step in the lab activity is worth 1 point. Total number of points per lab activity varies.
Grade of A = 362 - 326 total lab points; B = 325 - 290 total lab points; C = 289 - 264 total lab points; D = 263 – 217 total lab points; F = less than 216 total lab points

Students are expected to attend all class sessions and are required to use their clickers throughout the class for credit; students not actively participating throughout class with clickers will have points deducted from their class participation grade. Students are allowed two absences without penalty. More than two absences, as well as excessive lateness, will result in lower participation grades. Participation grades are at the instructor’s discretion and will be based, in part, upon timely attendance and class discussion.

**Procedure to Request an Excused Absence:**
Excused absence petitions must be submitted in writing either 1) one week prior to an expected absence (i.e., court appearance, doctor visit, family event, etc.) or 2) no later than one week after an unexpected absence (i.e., death in family, surgery, car accident, etc.). Failure to follow this procedure will result in denial of the petition and negatively impact class attendance, participation and make up work including quizzes & exams. Proper documentation must accompany the request (i.e. court papers, doctor note).

*Please Note: An excused absence does not excuse student from making up coursework and may impact the participation grade.*

**Quizzes & Exams** will begin on time and any student arriving after 10 minutes from the start, will not be able to take the quiz/exam and will receive a 0 for that quiz/exam. There are no makeup quizzes or exams without an approved excused absence. For those students with an excused absence, the quiz/exam must be completed prior to the next class. The makeup quiz/exam will consist of short answers, fill in the blanks as well as other test formats. For any missed quizzes, exams or assignments a 0 will be recorded. Please note there is no extra credit, extra assignments or additional work given or accepted to raise a student’s grade.

**COURSE OUTLINE:**

1. 1/29/13: COURSE INTRODUCTION & REQUIREMENTS
   CHAPTER 1: THE HUMAN BODY: AN ORIENTATION
   CHAPTER 2: CHEMISTRY COMES ALIVE

2. 2/5/13: CHAPTER 2: CHEMISTRY COMES ALIVE
   CHAPTER 3: CELLS: THE LIVING UNIT

3. 2/12/13: CHAPTER 3: CELLS: THE LIVING UNIT
   CHAPTER 4: TISSUE: THE LIVING FABRIC
4. 2/19/13:  CHAPTER 4: TISSUE: THE LIVING FABRIC
CHAPTER 5: THE INTEGUMENTARY SYSTEM
EXAM REVIEW: CHAPTERS 1 – 5

5. 3/5/13: EXAM I: CHAPTERS 1-5

6. 3/12/13:  CHAPTER 6: BONES AND SKELETAL TISSUE
CHAPTER 7: THE SKELETON

7. 3/19/13  SPRING BREAK NO CLASSES

8. 3/26/13:  CHAPTER 8: JOINTS

9. 4/2/13:  CHAPTER 9: MUSCLES AND MUSCLE TISSUE

10. 4/9/13:  CHAPTER 10: THE MUSCULAR SYSTEM

11. 4/16/13:  EXAM II: CHAPTERS 6-10

12. 4/23/13:  CHAPTER 11: FUNDAMENTALS OF NERVOUS SYSTEM
AND NERVOUS TISSUE
CHAPTER 12: THE CENTRAL NERVOUS SYSTEM

13. 4/30/13:  CHAPTER 13: THE PERIPHERAL NERVOUS SYSTEM
AND REFLEX ACTIVITY

14. 5/7/13:  CHAPTER 14: THE AUTONOMIC NERVOUS SYSTEM
CHAPTER 15: THE SPECIAL SENSES

15. 5/14/13:  No Classes- Final Week
16. 5/21/13:  EXAM III: CHAPTERS 11-15

Access to our class’s on-line Blackboard site:

You can access class information on-line at: http://blackboard.sunysb.edu. If you have used Stony Brook’s Blackboard system previously, your login information (Username and Password) has not changed. If you have never used the Blackboard system, your initial password is your SOLAR ID# and your username is the same as your Stony Brook username, which is generally your first initial and the first 7 letters of your last name. For help or more information, see: http://www.sinc.sunysb.edu/helpdesk/docs/blackboard/bbstudent.php
For problems logging in, go to the helpdesk in the Main Library SINC Site or the Union SINC site. You can also call: 631-632-9602 or email: helpme@ic.sunysb.edu.
**Americans with Disabilities Act**
The following statement must appear on the course syllabus or any handouts distributed to students during the first and second weeks of class. It is also recommended, that this statement be read at the beginning of the class for the first two weeks. If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. Students requiring emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information, go to the following web site.
http://www.ehs.sunysb.edu/fire/disabilities/asp

**Academic Integrity:**
Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/uaa/academicjudiciary/

**Critical Incident Management:**
Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.