

**Stony Brook University**  
**School of Health, Technology and Management**  
**Health Science Department: Health Science major**  
**FALL 2018**

HAN 200: Human Anatomy and Physiology for Health Sciences I (4 credits)  
Section: 1  
Lecture Day/Time: Friday 9:30 am to 12:30 pm  
Location: LH to be posted

Lecture Professor: Dr. Burke  
E-mail: [Christina.burke@stonybrook.edu](mailto:Christina.burke@stonybrook.edu)  
Office: Level 2, SHTM, Room 434  
Office hours: Friday after class

Lab Day/Time: Online 3 hours weekly  
**Lab Professor: Professor Weiss**  
E-mail: [matthew.weiss@stonybrook.edu](mailto:matthew.weiss@stonybrook.edu)  
Office: HSC, Level 2, SHTM, Room  
Office hours: TBA

Chair of the Health Science Major:  
Dr. Zelizer [deborah.zelizer@stonybrook.edu](mailto:deborah.zelizer@stonybrook.edu)

Health Science Advisors:  
Ms. Traci Thompson [traci.thompson@stonybrook.edu](mailto:traci.thompson@stonybrook.edu)  
Mrs. Jennifer Jimenez [jennifer.jimenez1@stonybrook.edu](mailto:jennifer.jimenez1@stonybrook.edu)

Course Administrator:  
Professor Crapanzano [donna.crapanzano@stonybrook.edu](mailto:donna.crapanzano@stonybrook.edu)

**Course Description:**

This is the first course in a two-part hybrid sequence that introduces the study of human anatomy and physiology at cell, tissue, and organ system levels of organization. Topics include the integumentary system, muscular system, skeletal system, peripheral, central and autonomic nervous system and special senses. Laboratory sessions entail inclass and online exercises designed to illustrate principles learned and computer simulated processes and dissection in physiology and anatomy. Different formats used are cadaver models, anatomical models, histology slides and physiological experiments.

**(P/NC grade option is not available)**

This course satisfies the SB GenEd category Study the Natural World (SNW).

Course pre-requisite: one BIO course; U2 standing or higher

**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, gustation and vision.
24. Describe homeostatic imbalances associated with olfaction, audition, gustation and vision.
25. Explain the relationship between senses and orientation and balance.

## **Course Requirements**

The Health Science Department recognizes the correlation between course attendance and both student retention and achievement so any class session or activity missed, regardless of cause, reduces the opportunity for learning and may adversely affect a student's achievement in the course and the final course grade. Class attendance is required, beginning with the first class meeting, and students are required to attend all HAN class sessions for which they are registered.

## **E-mail Communication**

When communicating with us via e-mail, be sure to include your full name, SB ID# as well as the section number for the course. We will not be able to respond to you if we don't know who you are or which section you are in.

## **Course Expectations**

- Respect for the instructor and fellow students throughout class is expected.
  - Students must be on time.
  - Cell phone ringers must be set to vibrate only.
  - Students may be permitted to use their laptops or other electronic devices during classroom time for academic purposes only.
    - Checking email, surfing the web for entertainment purposes, etc. is not permitted and will negatively impact your participation grade.
  - Professional behavior is expected at all times while in the Health Science Center.

## **Class Participation/Attendance Policy**

Active class participation is vital in learning, and, quite simply, you cannot participate if you are not in class. Regardless of the reason for the absence, failure to attend class always results in missed opportunities to hear and learn from your professors and fellow classmates.

- Class participation will be assessed through the use of clickers, as well as active engagement in class discussion, attentiveness, and instructor observation of student interaction during small group work.
- Students are required to attend all class sessions and are **REQUIRED** to use their clickers throughout the class; students not actively participating throughout class with clickers will have points deducted from their class participation grade. It is each student's responsibility to bring their clicker to class, to have spare batteries on hand and to ensure that the clicker is working properly.
- Students are **NOT** allowed to share clickers with other students **AND/OR** click in for a student who is not in class.
- Excessive lateness or early departure will result in lower participation grades and a decrease in your overall final course grade.

- Every student should review the syllabus and submit assignments by the required due date, regardless of an absence. An absence from class does not allow for late assignment submissions.
- Work done in class is part of a student's participation grade. Class work that is missed due to an absence cannot be submitted at a later date/time.
- Clicker points will be uploaded to Blackboard at the completion of each class session.
  - It is **YOUR** responsibility to make sure that your clicker has been registered and that you are clicking in, and not sending a message. Should you have any problems with your clicker, please go to the Help Desk in the Melville Library.

**There are no excused absences for this course and attendance/participation after the add/drop period will be counted toward the final course grade.**

Students absent on officially documented university religious observances; as well as curricular and extracurricular activities must provide the Professor with original documentation regarding their absence at the beginning of the semester and 1 (one) week before the event takes place.

### **Examination policy**

**During exams, when you enter the room, please adhere to the following:**

- The only **items in your hand as you enter the room should be pencils, erasers, ID badge, and highlighters** (highlighters/colored pens are only if the instructor allows).
- All electronic devices (i.e., cell phones, smart watches, step trackers, Google glasses, etc.) must be put either at the front of the room or in your bag/backpack. If you are found with an electronic device on your person during an exam it will be an automatic charge of academic dishonesty.
- Once you enter the room there will be no more talking!
- All items (i.e., notes, cell phones, etc.) must be packed away before you enter the room. Before you take your seat, you must put your pocketbooks, cell phones, backpacks, etc. at either the side of the room or the front of the room.
- Find your seat number (if applicable).
- Do not turn exam over until you are instructed to (meaning, do not start filling out scantron, etc.).
- Other information. If you are wearing a ball cap, the brim must be turned to 6 o'clock; if you wish to bring a drink to your seat it will be permitted but the faculty might ask to inspect the bottle/container; once the exam starts. A student will not be permitted to leave the room and return (i.e., go to the rest room and then return to exam).
- Examinations will begin on time and any student arriving 10 minutes after the start will not be able to take the exam and will receive a grade of zero (0) for that examination. There are no makeup quizzes, tests or exams given during the semester.

- Students must write their name/id# on the scantron and paper test and return every page of the exam at the conclusion of each exam. Only the answers notated on the scantron will be considered for grading. Students must bring #2 pencils, an eraser, and their SBU ID card with them for each exam.

If you miss one (1) examination, no documentation is needed and you are eligible to take:

- One cumulative lecture and lab make-up exam which will be administered following the final lecture/lab exam to replace the missed lecture/lab exam.
- The cumulative makeup will consist of short answer, fill in the blank, and other test formats and will cover topics from the entire semester.
- This option is only allowed once per semester and no other makeups or exceptions will be allowed so any other missed examinations will receive a 0 as the grade
- This option is not for assignments or class participation (attendance/clickers).
- Please note **there is no** extra credit, extra assignments or additional work given or accepted to raise a student's grade.

**Required Text with MyLab & Mastering A&P for HAN 200 and HAN 202 (one time purchase) OPTIONS TO PURCHASE VARY**

Marieb, E.N. (2012). *Human Anatomy & Physiology* (11<sup>th</sup> Edition) with Mastering A&P component. San Francisco, CA: Pearson Education, Inc., Pearson Benjamin Cummings.

**Required Readings:**

- Weekly Chapters posted with course outline
- 1 journal article to be posted in Blackboard under Assignments after Exam #1

**Required Equipment:**

Turning Point Technology Clicker

**Teaching Strategies:**

Lecture format via Powerpoints, ECHO 360, virtual discussion board and videos with student discussion and group activities; including correlated lab material through case studies, anatomical models, clinical videos and completing the objectives; use of Response system. Through the Virtual Human Anatomy & Physiology Lab specific activities to address the objectives that correlate with the lectures and discussion board posts to review human clinical scenarios to emphasize the relationship of the anatomy, physiology and clinical medicine.

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

**Examinations:**

- multiple choice and matching questions, not cumulative
- 3 written Lecture exams ( each weighing equally): 45%
  - 80 questions with anatomical & physiological pictures
- 3 written Lab exams ( each weighing equally): 21%
  - 20 questions with anatomical & physiological pictures

**Evaluations:**

- Lab Orientation 5%
  - sign up in Blackboard will be posted
- One journal article review 4%
  - Posted in Blackboard under Assignments after Exam #1
- Class Participation 10%
  - Clickers, group discussion and in- class activities
- Virtual lab activities 15%
  - Mastering A&P weekly activities, see Grading for Lab and items posted in Blackboard under Assignments

**Grade Scale:**

A (100 – 95) A- (94 – 90) B+ (89 – 87) B(86 – 83) B- (82 – 80)  
C+ (79 – 77) C (76 – 73)  
C- (72 – 70) D+ (69 – 67) D (66 – 60) F < 60  
Note: this is a required course for Health Science majors; minimum passing grade is C or better.

**FINAL EXAM CONFLICT INFORMATION**

If you have a final examination conflict (meaning a class you are taking on West Campus has a final at the same time as your HAN final), you will put in a request for an alternate time or day to your HAN class (do not make a request with West Campus class) This request needs to be submitted in writing via this google form link <https://goo.gl/forms/0yGRKdMU99tyJKAp1>. You will be informed of the date this form is due. If your request is made after the due date, your request will not be denied but may have less available days or times. Any further questions should be directed to the Course Administrator – Professor Crapanzano @ [donna.crapanzano@stonybrook.edu](mailto:donna.crapanzano@stonybrook.edu)

**Weekly Schedule of Readings & Exams: Check Blackboard weekly for updates**

Date	Chapter Readings
Aug 31: Orientation and Chemistry	Chapter 1 and 2
Sept 7: Cells: The Living Units	Chapter 3
Sept 14: Tissues: The Living Fabric	Chapter 4
Sept 21: The Integumentary System & Review for Exam 1	Chapter 5
<b>Sept 28: Exam #1</b>	
Oct 5: The Bones and the Skeleton	Chapter 6 & 7
Oct 12: Joints	Chapter 8
Oct 19: Muscles	Chapter 9
Oct 26: The Muscular System & Review for Exam 2	Chapter 10
<b>Nov 2: Exam #2</b>	
Nov 9: The Nervous System & CNS	Chapter 11 & 12 <b>Journal Review due</b>
Nov 16: The PNS	Chapter 13
Nov 23: No Class	<b>Happy Thanksgiving!</b>
Nov 30: The ANS	Chapter 14
Dec 7: Special Senses & Review for Exam 3	Chapter 15
<b>Dec 14<sup>th</sup>: Exam #3</b>	

**Americans with Disabilities Act:** 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, Room 128, (631)632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential. <http://studentaffairs.stonybrook.edu/dss/>

**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 is 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/commcms/academic\\_integrity/index.html](http://www.stonybrook.edu/commcms/academic_integrity/index.html)

**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 University Community Standards 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. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

