

Biology 18 - ESSENTIALS OF HUMAN ANATOMY & PHYSIOLOGY – 4 Units

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| Professor Alexandra Zannie Dallara | CRN #: 30728 | CRN #: 32318 |
| Alexandra.Dallara@bakersfieldcollege.edu http://zanniedallarasciencepage.weebly.com | Lec Mon & Weds 2:35-4 (SE-51) Lab Mon & Weds 4:10-5:35 (MS-24) | Lec Mon & Weds 2:35-4 (SE-51) Lab Mon & Weds 6-7:25 (MS-24) |

Office Hours: _____ in **SE-43C**.

Electronic Office Hours: _____ via text or email.

Class Outline – This schedule and content are subject to change, and does not include all quizzes & assignments.

| # | DATES | TOPIC | READING | LABORATORY | NOTES |
|-----------|----------------------|--|--------------------------|---|--|
| | Jan. 15 | Martin Luther King, Jr. Day | Monday | No Classes | |
| 1 | Jan. 15 & 17 | NO CLASS 1.Intro to Bio 18/Syllabus | Ch1 (Pg27) | Holiday 1.Skeleton Assembly (Pg1) | A: Preview |
| 2 | Jan. 22 & 24 | 2.Human Body 3.Skeletal System: Bones | Ch1 (Pg28) Ch5(Pg160) | 2.Apple lab (Pg4) 3.Skull (Pg9) | A: Flash Card of Bone Vocab D: Preview, A: SQ3R |
| | Jan. 28 | LAST DAY to DROP = No 'W' | | (Sunday) | |
| 3 | Jan. 29 & 31 | 4.Axial Skeletal 5.Appendicular Skeleton | Ch5 Ch5 | 4.Thoracic Cage; Vert. (Pg11) 5.Upper/lower extrem. (Pg16) | Quiz #1, D: Bone Flash Cards |
| 4 | Feb. 5 & 7 | 6.Joints and Movements 7.Exam #1 | Ch5, 6 Ch1, 5 | 6.Joints & Movements (Pg20) 7.Lab Practical | Quiz #2, D: SQ3R |
| 5 | Feb. 12 & 14 | 8.Intro to Chemistry 9.Cell Structure/Function | Ch2 Ch3 | 8.Chemistry (finish) (Pg22) 9.Microscopes (Pg30) | |
| | Feb 16&19 | No classes (Fri./Mon.) | | Presidents' Day Holidays | |
| 6 | Feb. 19 & 21 | NO CLASS 10.Cell Physiology; Mitosis | Monday Ch3 | Holiday 10.Cell Struc.&Mitosis (Pg37) | Quiz #3 |
| 7 | Feb. 26 & 28 | 11.Tissues 12.Tissues cont'd | Ch3(Pg114) Ch3 | 11.Tissue Classifi. (Pg41) 12.Tissue Classification | |
| 8 | Mar. 5 & 7 | 13.Integumentary System 14.Exam #2 | Ch4(Pg138) Ch2, 3, 4 | 13.Skin Struct./ (Pg47) 14.Lab Practical | Quiz #4 |
| 9 | Mar. 12 & 14 | 15.Muscular System 16.Nervous System: CNS | Ch6(Pg207) Ch7 | 15.Muscles (Pg49) 16. Brain/Nerves (Pg51) | A: Preview Nervous System D: Preview Nervous System |
| 10 | Mar. 19 & 21 | 17.Nervous System: PNS 18.Endocrine System | Ch7(Pg281) Ch9 | 17.Reflex Physiology (Pg56) 18.Endocrine Glands (Pg60) | Quiz #5 |
| | Mar 23 | LAST DAY to DROP = With 'W' | | (Friday) | |
| | Mar 26-31 | Spring Break | | | |
| 11 | Apr. 2 & 4 | 19.Circulatory System: Blood 20.Circulatory System: Heart | Ch10 Ch11 | 19.ABO Blood Typing (Pg61) 20.Heart (Pg68) | |
| | Apr 8 | Last Day Filing: Graduation | | No Classes | |
| 12 | Apr. 9 & 11 | 21.Circulatory System: Vessels 22.Exam #3 | Ch11 C 6,7,9,10,11 | 21.Vessels (Pg72) 22.Lab Practical | Quiz #6 |
| 13 | Apr. 16 & 18 | 23.Lymphatic/Immune Systems 24.Respiratory System | Ch12 Ch13 | 23.Lymphatic Structs. (Pg76) 24.Respiratory Structs.(Pg77) | Quiz #7 |
| 14 | Apr. 23 & 25 | 25.Digestive System 26.Urinary System | Ch14 Ch15 | 25.Digestive Organs (Pg81) 26.Urinary Organs (Pg85) | Quiz #8 |
| 15 | Apr 30 May 2 | 27.Male & Female Repro. Sys. 28.Overflow and Review | Ch16 | 27.Male&Female Repro. (87) 28.Lab Final Exam | |
| 16 | Finals | 29. FINAL Mon the 7th 2:00-3:50 | | | |

Academic Calendar

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| 11/15 | No Class – MLK Holiday |
| 11/17 Weds | Instruction Begins – <i>Be there or be dropped</i> |
| 02/19 | No Class – Presidents Day |
| 03/23 | Last day to withdraw and receive a “W” |
| 3/26-31 | Spring Break |
| 5/5-11 | Final Exams |

Supplies Needed:

1. Marieb, 2018. Essentials of Human Anatomy & Physiology (12th Ed.-ISBN 978-0134395326)
2. Newton Laboratory Exercises for Essentials of Human Anatomy & Physiology
3. Newton Lecture Notes for Essentials of Human Anatomy & Physiology
4. Binder & dividers

Optional text: A Visual Analogy Guide to Human Anatomy and Physiology (2017) by Paul A. Krieger

Grading: This course operates on an objective point system. Grades will be assigned based on the following accumulated point scale. I do **not** round/bump grades at the end of the semester.

| <u>Grade Scale:</u> |
|-------------------------|
| A = 90% = 675+ |
| B = 80% = 600+ |
| C = 70% = 525+ |
| D = 60% = 450+ |
| F = less than 60% < 450 |

| Grading | |
|---|------------|
| 1 LECTURE/LAB FINAL EXAMINATION: | 200 POINTS |
| 8 QUIZZES @ 10 POINTS (DROP 1) | 70 POINTS |
| 8 HAND-IN ASSIGNMENTS @ 5 POINTS | 40 POINTS |
| 21 LAB QUIZZES & LAB PARTICIPATION (DROP 1) | 100 POINTS |
| 1 RESUME & JOURNAL SECTION + SQ3R | 10 POINTS |
| FLEX POINTS | 30 |
| NOTE: NO EXCEPTIONS-THESE STANDARDS ARE NOT SUBJECT TO CHANGE THESE GRADE RANGES. | 750 POINTS |

Course Description: Biology 18 is an integrated life science course specifically targeted for students in health science programs. Topics will include microscopic and gross anatomy and physiology of all major human organ systems: immune/lymphatic, skeletal, muscular, cardiovascular, respiratory, digestive, excretory, nervous, endocrine, urinary, reproductive and integumentary. Additional topics will also address cell structure and function, human development and human heredity.

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| Hours: 54 lecture, 54 laboratory | Prerequisite: 1 Level Prior to Transfer. | CCS: Credit Course Transferable: CSU and private colleges; CSU GE B.2; CSU GE B.3; BCGE B.1 |
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Assignments:

Late Work: Late work **will** be accepted, the next class period for a **maximum of ½ credit**, unless otherwise specified, and not accepted after 1 class period late. If you know you are going to be more than 5 minutes late, I will accept an electronic copy of your work before the start of the class period, but I will need the hard copy the following class period to be graded.

- **Hand-in Assignments:** You will have various short assignments due throughout the semester. They will be based on selected pages from your lab manual, textbook, critical thinking questions, modules, etc., and they must be turned in promptly at the beginning of the class period for which they are assigned. No late assignments will be accepted. One assignment will be dropped for grading purposes for all students.
 - If you must be absent from a class meeting in which something is assigned, you are still responsible for the material covered, laboratory exercise, and submitting the assignment on time.
- **Flex Points:** To be assigned at teacher's discretion, and as such, are not represented as individual assignments on the syllabus.
- **Laboratory Notebook:** It is recommended that you assemble a laboratory notebook that will contain ALL of the work you complete during the laboratory portion of this course. The notebook will help you to prepare for each exam, quiz, and for the final comprehensive exam. It may also be helpful for future career preparations.
- **Midterm and Final Examinations:** There will be three midterm examinations worth 100 points each and a 200-point cumulative final examination. Missed exams will be assigned a grade of zero. All examinations will cover material presented in both lecture and lab, and they will be administered using a practical exam format in the lab, short answer/essay, matching, and/or fill-in items. **There are no makeups for missed exams.**
- **Quizzes:** Lab quizzes will be given during selected laboratory exercises and may be written or oral throughout the semester, covering anatomical structures and physiology concepts addressed during that day's lab. They cannot be made-up unless you make prior arrangements to attend a comparable lab during the same week (space permitting). Each lab quiz will be worth 5 points, and the content for each quiz will be addressed at the end of the lab period in which it is to be conducted. If you understand the objectives of the lab, you will do fine. If you leave early or arrive late, you may lose partial or full credit for the lab oral quiz.

Time Commitment:

For all college classes you are expected to complete approximately 2-3 hours per week outside of class for every 1 hour spent in lecture. For Bio 11 during the Fall and Spring semester that's 6-10 hours a week and for summer classes, that is **approximately 8+ hours EVERY Day of study time**. Depending on your level of preparation that may or may not be enough time for you to **earn** the grade you want.

Withdrawal:

The instructor will **not** drop you from the course after the first meeting. Please be aware of all deadlines to prevent a "W" from appearing on your transcript. It is up to the student to drop themselves through Inside BC. Any student enrolled in the course after the deadline to drop will receive a letter grade.

Expectations and Student Evaluation:

Attendance & Participation: Coming to all class meetings is absolutely mandatory. There is a direct correlation between attendance and your grade in the course. You risk receiving a lower grade for each class meeting that you miss. You are allowed to miss a total of three (3) class meetings throughout the semester; however, a student who is absent from more than three class meetings may be dropped from the class.

No make-up quizzes, labs or exams will be given unless arrangements are made before the quiz, lab or exam is scheduled. Lastly, promptness is expected of you; arriving to class late is NOT acceptable. In addition, tardiness may prevent you from taking quizzes and/or examinations, where extra time will not be given to those students who show up late. Also leaving class early is not acceptable. Any fraction of lab missed because of tardiness or leaving early will result in a deduction from the proportion of material not completed.

These guidelines are to emphasize the importance of being present for all lecture and laboratory meetings and as part of a college education are to help prepare you for a professional career.

- Class will start as scheduled. *If a quiz is given and you are late, I will not repeat questions.*
- Audio recording of classes are allowed for educational purposes, no video please. Sharing recordings on the internet is not allowed.*
- Laboratory Attendance:** Missed labs cannot be made up. Any student who misses more than three labs for any reason before the final drop date will be dropped from the course. If the fourth absence occurs after the final drop date, that student will receive an "F" in the course.

Student Conduct and Electronic Devices

Cheating in any form (including, but not limited to, copying test answers or outside assignments, sharing answers, using pre-prepared notes or other information not available from your own mind and otherwise plagiarizing work) will not be tolerated and the student will fail that exam or assignment. Please see the BC Catalog for definitions. You may discuss lab work and collaborate on data but the final writing must be independent and originally yours. *Common wording or paraphrasing is considered plagiarism.* You must cite any authors whose information or artwork you use, copy, paste or quote. **First & second offense:** Zero on the entire assignment, quiz or test. **Third offense:** Report to Dean of Students.

Course Resources:

- Canvas:** this can be accessed by logging in the the BC webpage and going to "my classes". Unfortunately, waitlist students cannot access the canvas accounts to material is duplicated on my webpage. ** If there is a difference in information between Canvas and the syllabus, the syllabus is always right!*
- Class Webpage** <https://zanniedallarasciencepage.weebly.com/biology-18.html> the material
 - In the case that the due dates or content is different in various places, always refer to the syllabus for the most accurate info.
- Remind:** Text App that you can sign up for. How to available on the supplies needed webpage of the weebly site.

- **Tutoring:** BC students get free peer one-on-one tutoring in the BC Tutoring Center in most subjects. Students get one 50-minute session per subject per week with a tutor who has successfully completed the class and is trained to be a tutor. We also have drop-in tutoring in math and English all day long. Come up to the Tutoring Center to schedule an appointment. If you have any questions, please call 395-4430 or check us out on-line at: <http://bcacademicdevelopmentdepartment.weebly.com/tutoring-center.html>
- **Supplemental Instruction (SI):** Supplemental Instruction (SI) is offered for Biology 18 this semester. SI sessions are group study opportunities facilitated by former successful biology students and may help assist you with study skills, anatomy and physiology concepts and will focus on course content. I encourage you to use this free program offered to all Bio 18 students through Bakersfield College. See <https://www.bakersfieldcollege.edu/si> for more information.
- **Special Accommodations:** Students with disabilities needing accommodation, including those who had an IEP in high school, should make requests to Disabled Students Programs and Services, Counseling Center, CSS 40 or Delano room 1001. Or call 661-395-4334 at BC, or 661-720-2000 in Delano. All requests for accommodations require appropriate advance notice to avoid a delay in services. Please discuss approved accommodations with me so we can work together to ensure your access and success at BC.

Bio 18 Laboratory Safety Policies and Procedures

- No eating, drinking (including water) or smoking in the classroom, hallways or labs.
- Cell phones, pagers, and other such electronic devices must be turned off during class and lab time and securely stowed away.
- Memorize the locations of the emergency eyewash station, emergency shower, fire blanket and fire extinguisher. In the event of a fire, smother it with a blanket. If it involves your clothing or hair, never run! Stop, drop and roll.
- In the case of fire, explosion, earthquake or disaster, there are procedures posted on the bulletin board. Evacuate the classroom immediately for fire or explosion and check in with the instructor. Duck and cover for earthquake and do not leave the area until given further notice.
- In the case of an Active Shooter situation, it is important to be prepared and think about how you will respond beforehand, as these situations are dynamic and evolve rapidly. According to the Department of Homeland Security (DHS), you should 1) run, 2) hide, 3) fight. More information can be found on the Bakersfield College and Department of Homeland Security websites.
- Work in the lab only when supervised and perform only authorized experiments.
- Be prepared for each upcoming lab. Read each lab beforehand, and be aware of the safety measures required for each lab.
- Keep your work area clean and neat for the experiment, and wear appropriate clothing, lab coats, safety goggles or glasses, and tie hair back if necessary.
- Shoes must be worn at all times while in the lab. Closed shoes help protect your feet.
- Report any accident immediately to the instructor regardless of how minor it may appear. Be cautious if there is any bleeding or if a chemical is spilled or glass is broken.
- **Clean up your bench area before leaving the laboratory.** Dispose of all materials in the appropriate containers, and return all supplies to the appropriate locations.



Student Learning Outcomes

1. **Anatomical Terminology:** Use proper anatomical terminology to describe body parts, cavities, position, directions, surfaces, and planes.
2. **Homeostasis:** Define homeostasis and explain its importance including **negative feedback** and its role in maintaining homeostasis and normal body function.
3. **Chemistry:** Describe the arrangement of electrons, neutrons, and protons in an atom and the role that electrons play in chemical bonding. Distinguish between organic and inorganic compounds. Describe the basic structure and function of the 4 biological **macromolecules** that compose all life.
4. **Cells:** Identify and describe all major cellular **organelles** and their primary functions. Briefly describe the structure of the plasma membrane and explain how various **transport** processes account for the directional movement of specific substances across it. Describe the process of the **cell cycle** and mitosis and explain the importance of **mitotic cell division**.
5. **Tissues:** Name the four major tissue types and their chief subcategories and explain how they differ structurally and functionally. Give the chief locations of the various tissue types in the body.
6. **Membranes:** List the general functions of each membrane type and give its location in the body. Compare the structure (tissue makeup) of the major types of membranes.
7. **Organ Systems:** Name and identify all major organ systems of the human body and their general functions in relationship to structure (anatomy) and function (physiology) of all major organs and organ systems. Name and locate on models the major organs that compose each organ system and briefly describe the major functions of each. Trace the pathway/flow of information or material through selected organ systems. Understand and describe selected **homeostatic imbalances**.
8. **Problem Solving:** Work both independently and collaboratively within a clinical team to conduct laboratory exercises and solve problems.
9. **Tech Skills:** Demonstrate knowledge of how to use basic laboratory equipment, computer software, and microscopes.
10. **Laboratory Procedure:** Demonstrate a working knowledge of the safety features of the biology laboratory by practicing safe science when doing laboratory exercises.
11. **Critical Thinking:** Retrieve, evaluate, and use information regarding the human body and medicine to make informed decisions about issues relevant to their everyday lives and the world.

Sign and Turn In

I have read the syllabus and understand the requirement and commitments Biology 18 with Professor Alexandra Zannie Dallara. I also understand that my seat is valuable and there are many other students who need this course in order to complete their pre-requisites at BC. By signing below, I am treating this syllabus as a contract and pledging to give my best effort and achieve my goals in this course.

| | |
|-------------------|-----------------------|
| Print Name | Section (CRN#) |
| Signature | Date |

In addition, please describe three study skills you will practice in this class:

1)

2)

3)

Take a picture of this (or scan it) and submit it on canvas.