Animal Physiology ZOO110

Welcome to Animal Physiology, ZOO110. This course will introduce you to many topics exploring the inner workings of all types of animals. We will compare unique adaptations which allow individual species to survive in different habitats. Please read the below and have a very clear understanding of what is expected. Thank you for taking this class and together we will explore the animals in our world.

This is an inclusive classroom. In our class all students are welcome, from every race/ethnicity, gender identity, gender expression, sexual orientation, socio-economic status, age, disability, religion, regional background, veteran status, citizenship status, nationality, and any other identity. In fact, the more diverse our classroom the more we can learn from each other. As much as I strive to understand each student's perspective, I also understand that my own lens is limited. Therefore, if at any time you feel that this classroom or my teaching is not inclusive to you, please let me know so that I can improve. I have a link to an anonymous feedback form on our course homepage that you can submit any time.

Part of creating inclusion is recognizing that due to the cumulative effects of various forms of oppression as well as other societal inequities, some students experience more barriers than others. My goal is for you to succeed in this course, and to that end I am committed to collaborating with you to reduce any barriers that may create individual hardships. I invite you to communicate openly with me about challenges you may need to manage during the course, so that I can support you to the best of my ability.

Special Note for Students Who Are Caretakers: The struggles of balancing school, childcare and often another job can be a barrier to education. I would like to reduce this barrier as much as possible, so I hope that you will feel comfortable disclosing your student-parent status to me. This is the first step in my being able to accommodate any special needs that arise. Thank you for the diversity you bring to our class! While I maintain the same high expectations for all students in my classes regardless of parenting status, I am happy to problem solve with you in a way that makes you feel supported as you strive for school-parenting balance.

Please see the end of the syllabus for more information on specific accommodations and resources to help you.

Course Syllabus

ZOO 110 Animal Physiology

Instructor: Michelle Berman Kowalewski

Email: mbkowalewski@pipeline.sbcc.edu

Office hours: Please check canvas. I am also available by email.

Textbook: Fourth Edition of Animal Physiology by Hill, Wyse and Anderson. This book is required and will help further your understanding of presented topics. There is much more information in this book then you are required to know. I will try to list chapters or pages of helpful readings throughout my lecture notes. I will also provide additional readings, images, or videos to help support lecture concepts.

Course overview*:* You are registered for Animal Physiology. This is an introductory level class with some very complex topics. We will explore how animals works and adaptations to allow animals to inhabit extreme environments. Please stay on top of the material and if you get lost, please seek help.

Course Requirements and Expectations: Each week I will post lectures based on that week's topics according to the syllabus. Please complete the lecture in the given week and complete the associated quiz before starting the new topics. This is an online, self-paced class but the quizzes will only be open during their corresponding week. **There will be no make-up quizzes so please stay on top of the lectures and quizzes as we move through the semester. I also do not grant extensions on any of my assignments.** You will have ample opportunity to complete the work. Be sure to familiarize yourself with the schedule below so you are aware when assignments are due. The lectures will be posted by week on their own page.

Exams: There will be two essay based exams as well as one final exam. The exams will be 100 points each and will be based on lecture topics. You will have one week to finish the exams. The final will be 150 points and will be cumulative.

Lecture quizzes/assignments: There will be 10 quizzes throughout the semester and you will have two weeks to complete the quizzes. No lecture quiz will be given the week of the exams. Each quiz will be worth 5 points. There will also be 10 discussion topics. You will earn 10 points for contributing to these.

Your grade: Your final grade will be out of 500 points. Each week you will be responsible for reviewing the lecture. At the end of the set of each topic there will be a 5-point quiz. There will also be a discussion topic each week where you can earn up to 10 points for your participation. There will be two 100-point essay exams. The other 150 points will be the final at the end of the course.

Final Grade Determination

Course grade	Percentage of total points	Number of points earned
A	90-100%	450 - 500
B	80-89%	400-449
C	70-79%	350-399
D	55-69%	275-349
F	0-54%	0-274

Your success: I want you to do well in this course. Please email if you have any questions or problems with the course, assignments, anything to do with your experience here at SBCC, or if you just want to chat. It is my job to help you succeed. If I am not able to help you, I will try to put you in touch with someone who can. Also, don't think that you should wait until a problem arises to come see me or talk to me. Come anytime, no question is too small and students that attend class regularly and keep an open line of communication with the instructor typically perform better in the course. You should take advantage of opportunities to talk with your professors as we're here to help you learn!

Pipeline: If you have not already done so, you should log into and familiarize yourself with Pipeline immediately. Your first assignment, the Learning Resources Worksheet, will guide you through this. I will use Pipeline to communicate with you via email, as well as post announcements, course documents and relevant links, so please access Pipeline regularly. To log into Pipeline: Go to the SBCC homepage (www.sbcc.edu) and click on Pipeline. **If you have difficulty accessing or using Pipeline, fill out the**

Student Learning Outcomes:

1. ZOOL110 SLO1 - Describe individual cell structure and metabolism and the nature of cell-cell communications in immune, nerve, muscle, endocrine and neuroendocrine, and sensory systems.
2. ZOOL110 SLO2 - Describe cellular bioenergetics and processes of feeding and digestion, anaerobic and aerobic metabolism, and thermal regulation.
3. ZOOL110 SLO3 - Describe the structure and function of hormonal and nervous integrating systems controlling rhythms, reproduction, and behavior.
4. ZOOL110 SLO4 - Describe muscle and movement as related to internal fluid transport and locomotory activity.
5. ZOOL110 SLO5 - Describe structural and physiological mechanisms controlling homeostasis of dissolved gases, water, solutes, and metabolic wastes.

Online Help Support form at http://www.sbcc.edu/support/contact/ or call 805-965-0581 (ext. 2949).

Academic honesty: Academic dishonesty (including plagiarism) will not be tolerated in this course. Refer to SBCC's academic integrity statement for standards of conduct and penalties. ***All work submitted must be your own.***

Students with special needs: SBCC students with verified disabilities who are requesting academic accommodations should use the following procedure: (Please note that this procedure also applies to student requests to bring personal service attendants and/or service animals into class.) **Step 1:** Obtain documentation of your disability from a licensed professional. You may contact DSPS to request a

Disability Verification Form. **Step 2:** Make an appointment to meet with a DSPS Specialist to review your documentation and discuss reasonable accommodations. To schedule a meeting, please call DSPS at (805) 730-4164. **Step 3:** Bring your disability documentation to your DSPS appointment. The DSPS office is located in room 160 of the Student Services building. **Step 4:** Each semester, reach written accommodation agreement with the DSPS Specialist and your instructor.

Please complete this process in a timely manner to allow adequate time to provide accommodation.

Lesson Structure

Lesson 1 – Introduction to physiology

Lesson 2 - Thermoregulation, heat exchange, thermogenesis

Lesson 3 - Metabolism, energetics, metabolic strategies

Lesson 4 - Locomotion, Movement, Skeletal Support

Lesson 5 - Nervous System, Biological Rhythms, Bio-processing

Lesson 6 - Sensory, Chemoreception, Photoreception

Lesson 7 - Circulation, Cardiovascular System

Lesson 8 - Respiration, Gas Exchange, Diving and Altitude

Lesson 9 - Feeding, Foraging, Digestive System

Lesson 10 - Sound Production, Communication, Echolocation

Lesson 11 - Reproduction, lactation

Lesson 12 - Wildlife in their environments

Lesson 13 - Conservation biology

Lesson 14 - Emerging Research and Case Studies

Week	Dates	Lecture	Assignment(s)
1	Aug 28- Sept 1	Introduction to physiology	Quiz 1
2	Sept 4-8	Thermoregulation, heat exchange, thermogenesis	Quiz 2 Discussion
3	Sept 11-15	Metabolism, energetics, metabolic strategies	Quiz 3 Discussion
4	Sept 18-22	Locomotion, Movement, Skeletal Support	Quiz 4 Discussion
5	Sept 25-29	Nervous System, Biological Rhythms, Bio-processing	Quiz 5 Discussion
6	Oct 2-6	Sensory, Chemoreception, Photoreception	Exam 1

7	Oct 9-13	Circulation, Cardiovascular System	Quiz 6 Discussion
8	Oct 16-20	Respiration, Gas Exchange, Diving and Altitude	Quiz 7 Discussion
9	Oct 23-27	Feeding, Foraging, Digestive System	Quiz 8 Discussion
10	Oct 30- Nov 3	Sound Production, Communication, Echolocation	Exam 2
11	Nov 6-10	Reproduction, lactation	Quiz 9 Discussion

12	Nov 13-17	Wildlife in their environments	Quiz 10 Discussion
	Nov 20-24	Thanksgiving	No Class
13	Nov 27- Dec1	Conservation biology	Discussion
14	Dec 4-8	Emerging Research and Case Studies	
15	Dec 12-15		Final Exam