# ANIMAL BEHAVIOR Zoology 140 CRN 55033

COURSE SYLLABUS – Spring 2019

Instructor: Kris Burnell, Ph.D. Email: burnell@sbcc.edu

**Course Focus.** This course will introduce students to the basic concepts of animal behavior. By the end of the semester, students will have a general understanding of invertebrate and vertebrate behavior, including learning, foraging strategies, sexual selection, mating systems, social behavior and the evolutionary mechanisms that guide it.

This is a three-unit non-major's biology course which satisfies the SBCC General Education requirement in Natural Sciences. This course is transferable to the UC & CSU as a general education life science course. Biology majors are welcome to take this course, however they will not receive credit toward their major for this course.

## Supplies.

Textbook: *Animal Behavior, 11<sup>th</sup> ed.,* by Rubenstein & Alcock, 2019. It is available in print and as an ebook. All readings from this text are designated "textbook" on the schedule and in Canvas. Note: the textbook for this class is not required. You will be able to do well in the class by only reading the posted lecture material. However, the textbook does contain additional information and many, very good examples to illustrate many of the concepts we will discuss.

SimUText: Darwinian Snails. Evolution and natural selection interactive tutorial. This online tutorial is required and is available to purchase at SimUText. The cost is \$6. A link and directions for how to purchase it can be found by clicking on "SimUText Natural Selection tutorial" under "assignments" in Canvas.

## Course Requirements.

**Quizzes**. There will be 10 quizzes, worth 10 points each, which are designed to assess your basic understanding of each topic as well as to make sure you are keeping up with the reading. All quizzes will consist of 10 multiple choice questions. Quizzes will be available at least 1 week prior to the due date. You may take the quiz any time prior to 11:40pm on the day it is due. Once you begin the quiz you will have 20 minutes to complete it.

**Essay Tests.** There will be 3 tests, worth 50 points each, which are designed to more deeply assess your understanding of the material. All tests will consist of 4 – 8 essay type questions in which you will be expected to clearly discuss and explain various concepts using complete sentences. You will have 90 minutes to complete each of these tests. Note: the point of these tests is to assess how well you've learned and understand the information. If you simply plan to read each question, then look up the information in the book, lecture notes or internet before formulating your answer, you very likely will 1) not have time to finish the test; and 2) be unable to provide a clear, correct and complete answer to the questions. If you want to have time to finish and do well on the tests, you will need to study and prepare prior to taking them. Study guides are posted for each test to help guide you through the information you will be expected to know and understand.

All tests are open note but <u>must be answered in your own words</u>. All submitted tests will be checked by Turnitin.com to detect any plagiarism (e.g. answers that you cut and paste from the internet). Any test that has a turnitin.com similarity score of 15% or more will

**not be graded and will earn 0 credit.** (A similarity score is the measure of the percentage of your writing that matches another source. I.e. how much was NOT written in your own words.)

Unfortunately, Canvas cannot directly submit timed tests to turnitin.com in a way that allows me to access the information. This means you will have to submit your answers to turnitin using <u>a separate turnitin account that is external to any turnitin account you might be</u> <u>able to access through Canvas</u>. So, as you complete each test you will need to copy and paste your answers into a separate document. Please put only your answers – DO NOT include the question – in this document. You will then submit this document to the external turnitin account that you will have created. A failure to submit your test answers to this external turnitin account will result in a score of 0 on that test.

You will need to make sure you have created a turnitin.com account prior to taking the first test. Directions on how to do this ("turnitin directions spring 2019.pdf") are posted on the course home page.

**Evolution & natural selection assignment**. This assignment involves completing an online evolution and natural selection tutorial. You will need to purchase the module from SimUText (cost is \$6) and download it onto your computer to run the tutorial. The link and directions necessary to make your purchase can be found by clicking on "SimUText Natural Selection tutorial" under "assignments" in Canvas. This assignment is worth 40 points and is due no later than midnight (12am) PST Feb. 1, 2019. You will have completed this assignment when you have completed all the simulations and answered all the questions. There is nothing for you to submit to Canvas. I will retrieve your scores from the SimUText site and transfer them to Canvas.

<u>"Survival of the Sneakiest" cartoon & questions</u>. This short assignment involves reading a cartoon and then answering a few relevant questions at the end. Please write your answers in a new document and submit ONLY the answers to the assignment in Canvas. This assignment is worth 10 points and is due no later than midnight (12am) PST Feb. 1, 2019.

<u>Videos & worksheets</u>. You will be required to watch several videos throughout the semester. Links to each video are posted in the assignment on Canvas. Each video will illustrate and reinforce concepts and ideas discussed in the readings. Each of the videos will include a worksheet for you to complete using information and **specific examples from the video**. Each video worksheet has slightly different expectations so be sure to carefully read the directions on the worksheet prior to starting the video. Each worksheet is worth 20 points.

**Discussion** Group discussions will take place in the discussion forum on Canvas. This forum is a place where you can ask questions and engage in discussions with your classmates about relevant course material. You will only be expected to participate in at least one (1) group discussion during the semester. Participation can involve either posting a real, thoughtful question about the subject matter or answering another student's question or engaging in a discussion about a relevant topic. You will enter this forum by selecting the "discussion" tab at the left of the class homepage in Canvas. Once in the discussion forum, you can post a question or topic and/or reply to a question or topic posted by myself or another student. Note: asking or answering what time something is due or where you can find the syllabus does not count as participation and will NOT fulfill this requirement. This participation is worth 20 points.

**Introductory animal observation and description.** This assignment involves you observing animals in their natural habitat and describing what you see. You will spend a minimum of 20 minutes observing an animal (or group of animals) and then writing 2-3 paragraphs describing the animal's behavior. Your goal is to provide as complete and detailed a description as possible, while avoiding using anthropomorphic (human characteristics) descriptions of what you see. You will also need to give the date, time and location of your observation as well as the species name of the animal. More detailed instructions are posted under "assignments" and the module "Animal observation assignments". This is assignment is worth 30 points and is due no later than midnight (12am) PST Mar. 13, 2019.

**Final animal observation paper**. Your final assignment will involve making more observations of animals in their natural habitat, and then analyzing and interpreting your findings. The goal is for you to demonstrate your understanding of the adaptive value of behavior. You will be expected to use and apply correct terminology to describe what you see and explain the observed behaviors from an adaptive point of view.

Detailed instructions are posted under "assignments" as well as in the module "Animal observation assignments". This paper is worth 100 points and is due no later than midnight (12am) PST May 2, 2019.

**Final exam**. There will be one cumulative exam given at the end of the semester. This exam will consist primarily of multiple choice questions and is worth 100 points. You will have 1 hour & 15 minutes (75 minutes) to complete the exam. Although this exam will not be proctored, students should NOT plan to make use of books, notes, or the internet while taking the exam. The final exam will be available from May 6 - 9, 2019.

#### Late Work

Unless previously approved, any work submitted late will incur a 10% reduction in points for each day it is late. No work will be accepted after a week past its due date.

## Attendance

If a student fails to submit any assignments over a period of 2 weeks or more, they will be considered as "no longer attending" and is subject to being dropped from the class.

Final Course Grade will be based on the following distribution of points:

Total	700 points	100%	
Final exam	100 points	14%	
Final animal observation paper	100 points	14%	
Intro animal observation& description	30 points	4%	
7 video worksheets @ 20 points each	140 points	20%	
3 essay tests @ 50 points each	150 points	21%	
10 multiple choice quizzes @ 10 points each	100 points	14%	
Survival of the Sneakiest Cartoon	10 points	1%	
SimUText tutorial	40 points	6%	
Discussion/interaction	20 points	3%	
Intro about you	10 points	1%	

## The following scale will be used for determining the final course grade:

Depending on the overall performance of this class, these percentages may be lowered, but they will not be raised. Therefore, anyone who earns 90% or above is guaranteed an A grade. Anyone who earns 80% or better is guaranteed at least a B, and so on.

GRADE	TOTAL PERCENTAGE	TOTAL POINTS ACCRUED
A+	100-97%	700-675
А	96-90%	674-626
A-	89%	625-619
B+	88-87%	618-605
В	86-80%	604-556
B-	79%	555-549
C+	78-77%	548-535
С	76-70%	534-486
D	69-60%	485-416
F	59-0%	415-0

It is important that you realize your grade is the result of your performance on the quizzes, tests and other assignments. You must take responsibility for your own grade! As your instructor, my job is to provide you with the information you need to know and understand. I will try my hardest to do this through clear and interesting presentations of the material. Your job as a student is to learn it, use it, and understand it. If you are having difficulty doing this, it is your responsibility to seek help. Do NOT wait until the last 2 weeks of the semester to do this.

**Extra Credit**. First, I don't generally offer extra credit unless something appropriate comes up. Second, my policy on extra credit is that it is "extra" credit **offered only to students who have already completed all of the regular credit**. This means that **if** an appropriate extra credit opportunity comes up (and it rarely does – so don't count on any extra credit), only those students who have completed <u>ALL</u> the regular credit (i.e. they haven't missed any assignments) will be eligible to complete the extra credit.

**Policy on Cheating**. Santa Barbara City College has a strict policy on academic honesty and I maintain a <u>zero tolerance for any act of academic dishonesty</u>. Academic dishonesty, as defined by myself and SBCC, includes, but is not limited to: cheating on an exam (e.g. looking at or copying from someone else's exam, talking to someone during an exam, using cell phones or texting, bringing prepared "cheat sheets", using translators or dictionaries) copying someone else's work or answers on worksheets or assignments, plagiarism, or submitting a paper written wholly or in part by someone else. <u>All instances of academic dishonesty will be reported to the academic dean</u> for institutional action. In addition, the dishonest student will receive a zero score for the exam/assignment on which the cheating occurred.

**NOTE:** All assignments (except multiple choice quizzes) **must be answered in your own words**. All submitted assignments will be checked by Turnitin.com to detect any plagiarism (e.g. answers that you cut and paste from the internet or copy from another student). Any assignment that has a turnitin.com similarity score of 15% or more will not be graded and will earn 0 credit and the incident may be reported to the Dean of Students. Accommodations for Students with Disabilities: Disability Services and Programs for Students (DSPS) coordinates all academic accommodations for students with documented disabilities at Santa Barbara City College. If you have or think you might have a disability that impacts your educational experience in this class, contact DSPS to determine your eligibility for accommodations. DSPS is located in the Student Services (SS) Building, Room 162. Their phone number is <u>805-730-4164</u>.

If you have already registered with DSPS, please submit your accommodation requests via the 'DSPS Online Services Student Portal' as soon as possible. This needs to be done each semester. Once submitted and confirmed, make arrangements to visit with a counselor about your specific accommodations.

Complete this process in a timely manner to allow adequate time to provide accommodations.

**Student Learning Outcomes (SLOs)**. Upon successful completion of this course, students will be able to:

- 1. Describe and analyze the concept of total fitness. Be able to identify and explain the components of total fitness and demonstrate an understanding of survivorship and reproductive behaviors.
- 2. Describe social behaviors and demonstrate an understanding of how they evolve, including an understanding of parental investment, mating systems and parental care.
- 3. Integrate and apply concepts of natural selection, sexual selection and other evolutionary processes through observation, experimentation and description of adaptive behaviors.

Animal Zoolog	Behavior	Spring 2019	6	
Topic	Due Date	Topic and Assignments	Readings	
1	Jan. 22	<i>Introduction: How to study animal behavior</i> Topic 1 quiz	Textbook*: Ch. 1 Lecture^ 1	
2	Feb. 1 Feb. 4 Feb. 5	<i>Evolution, natural selection &amp; adaptation</i> SimUText Natural Selection tutorial, cartoon Video 1: 4 Billion Year War Topic 2 quiz	Textbook: Ch. 1 Lecture 2	
3	Feb. 13 Feb. 14	Proximate mechanisms: neurons, hormones, genes and the development of behavior Video 2: Brain Power Topic 3 quiz	Textbook: Ch. 3; Ch. 4; Ch. 5, pp. 166-176; Lecture 3	
	Feb. 20	Test 1 – will cover topics 1-3		
4	Feb. 26 Feb. 27	<i>Communication</i> Video 3: Talking to Strangers Topic 4 quiz	Textbook: Ch 8 Lecture 4	
5	Mar. 7 Mar. 8	<i>Survival behavior: self-defense, foraging</i> Video 4: Hunting & Escaping Topic 5 quiz	Textbook: Ch. 6 Lecture 5	
6	Mar. 14 Mar. 15	<i>Survival behavior: Habitat selection &amp; navigation</i> Video 5: Finding the Way Topic 6 quiz	Textbook: Ch. 7 Lecture 6	
	Mar. 19	Test 2 – will cover topics 4-6		
7	Apr. 3	<i>Reproductive behavior: sexual selection</i> Topic 7 quiz	Textbook: Ch. 9 Lecture 7	
8	Apr. 10 Apr. 11	<i>Reproductive behavior: mating systems</i> Video 6: Continuing the Line Topic 8 quiz	Textbook: Ch. 10 Lecture 8	
9	Apr. 18	<i>Reproductive behavior: parental care</i> Topic 9 quiz	Textbook: Ch. 11 Lecture 9	
10	Apr. 24 Apr. 25	Social behavior: selfishness, mutualism, altruism, eusocial behavior Video 7: Winning Teams Topic 10 quiz	Textbook: Ch. 13; Ch. 12 Lecture 10	
	Apr. 29	Test 3 – will cover topics 7-10		
* textbo	Mar. 13 May 2 May 6-9 ook, Ruber	Intro observation and description due Final animal observation paper due Final exam Instein & Alcock (2019)		

^ lecture notes posted on Canvas