ZOOLOGY 101/BIOLOGY 101 – SUMMER 2018

Course Schedule
Lecture: MTWThF 8:15-9:05, 168 Noland
Discussion: MW or TTh 9:15-10:05, 241 Noland

Zoology/Biology 101 is a 3-credit lecture course that covers general biological principles. Topics include: evolution, ecology, animal behavior, cell structure and function, genetics and molecular genetics and the physiology of a variety of organ systems emphasizing function in humans. There are mandatory discussion sections associated with this course. Prerequisites: None. Not recommended for students with credit already in Zoology/Biology/Botany 151 or 152.

Course Designations and Attributes
Breadth- Biological Sciences, counts toward the Natural Sciences requirement
Level - Elementary
L&S Credit - Counts as Liberal Arts and Science credit in L&S

Instructional Mode
Face-to-face

Credit Hours
The credit standard for this course is met by an expectation of a total of 135 hours of student engagement with the course learning activities (at least 45 hours per credit), which include regularly scheduled instructor-student meeting times (Monday through Friday 8:15-9:05am), discussion sections (MW, 9:15-10:05am OR TThu, 9:15-10:05am) reading, writing, problem sets, and other student work as described in the syllabus.

Instructor
Danny Minahan
dfminahan@wisc.edu
Office Hours: MTWF 9:15-10:15 am, or by appointment in Noland 262

Teaching Assistant (Discussion)
Amanda Rae Carter
acarter8@wisc.edu
Office Hours: MTWTh 10:05-11:05 following Discussion in Noland 262

Text/Reading
Required Text: Biology, Campbell (11th ed.). Either print or on-line. Reserve copies at Steenbock Library
Supplemental materials will be added to the Canvas course website. Be sure to visit the website frequently.

Readings MUST be completed prior to class each day so that you can follow Lectures, and actively engage with Discussion activities.

Quizzes

Four online quizzes will be given every two weeks, each worth 25 points. The purpose of these quizzes is to help you keep up with the material between each exam. The quiz will cover material presented in both the textbook and lecture from Monday through Friday during the quiz week. **Each quiz will be assigned on Canvas** on Friday and must be completed prior to class the following Monday. All quizzes will be open book, but you must do them on your own. You will have 60 minutes to complete each quiz, after which time the quiz will be submitted automatically. Once you start a quiz you must finish it, so set aside the appropriate time when you start.

Exams

There will be four exams, with one every two weeks, each worth 60 points. The exams will be conceptual in nature requiring that you make connections among the individual components of the course material. This includes from the readings and lectures. Each exam will cover the full two weeks of material.

EXAMS CANNOT BE MADE UP without documentation of serious conflict (e.g. family or medical emergency). If you do miss an exam and have appropriate documentation, you can arrange for a makeup. Arrangements for a makeup exam must be made within two days of the original exam date.

There will be one *Exam Wrapper* following the first exam. This will allow you an opportunity to reflect on your performance and consider specific methods that worked well, and those that did not. This will be a ½ - 1 page single space document due the Friday after the first exam (6/8)

Discussion

Discussion is **mandatory**. You must plan to attend the discussion section for which you signed up. If you must miss a Discussion for a family or medical emergency talk with your TA, and we will make every effort for you to attend an alternate section. Any unexcused absence from Discussion will result in 0.25% being deducted from your final grade for each absence.

Nature Notes

Observation, reflection, and natural history are essential to understanding and appreciating what you learn in this course. Indeed, all science inquiry begins with observations. There will be an opportunity for you to get outside, observe your surroundings, reflect on what you saw, how you felt, and how it relates to this course and the assigned reading. The readings associated with the observation will come from *A Sand County Almanac* by Aldo Leopold. If you are not familiar, Aldo Leopold started the Department of Wildlife Management (now The Department of Forest and Wildlife Ecology) here at UW-Madison. This book is a collection of essays written by Aldo Leopold during his time on his sand farm in central Wisconsin. It is considered by many to be the first ecology textbook. As such the nature notes assignment will be **due Monday 7/2** prior to the ecology module. The readings for this activity will be posted on Canvas during the first couple weeks of class. This assignment should be 1-2 pages single spaced and connect your

observations to the course material so far, and the associated readings from *A Sand County Almanac.* This is meant to be an enjoyable opportunity so let your artistic and science minds blend together.

Grading

Activity	Points
Four Exams	240
Four Quizzes	100
Nature Notes	15
Exam Wrapper	5
Total	360

No extra credit assignments are offered in this course, and there will not be a curve.

Grading scale

90-100% A
88-89.99% AB
80-87.99% B
78-79.99% BC
70-77.99% C
60-69.99% D
Below 60% F

Tentative Course Outline and Schedule

Date		Topics Covered	Readings and Assignments
M	5/21	Introduction, Logistics, Approach to course; Diversity of Life	2-6; 11-16
T	5/22	Molecules of Cells: Water and Carbohydrates	44-45; 49; Figure 4.9; 66-72 Chapters 2 and 4 provide optional chemistry review and background
W	5/23	Molecules of Cells: Proteins and Lipids	72-83; 153-156
TH	5/24	Lipids, Membrane Structure	126-132; 131-141
F	5/25	Membrane Function: Transport; **Quiz 1 Posted**	132-141; Figure 7.7
M	5/28	Prokaryotic Cells and Human Microbiome; **Quiz 1 Due (8am)**	94-98; 571-576; Figure 41.17; TED Talk: How Bacteria Talk

T	5/29	Organelles and Eukaryotic Cells	99-122; Figure 6.8; Figure 7.9; Figure 6.32
W	5/30	DNA Structure and Replication	84-88; 314-326
TH	5/31	DNA Repair, DNA Packaging, Telomeres	327-332
F	6/1	**Exam 1**	
M	6/4	Transcription, Translation	335; 338-350
T	6/5	Translation, Mutation, Folding	347-360
W	6/6	Cell Cycle and Mitosis	234-243
TH	6/7	Cancer	244-249; 386-392
F	6/8	Meiosis; **Quiz 2 Posted**	254-267; 306-307
M	6/11	Mendelian Genetics; **Quiz 2 Due (8am)**	269-278; 284-287
T	6/12	Mendelian Genetics	278-280; 298-300
W	6/13	Epigenetics	330-332; 368-370
TH	6/14	Cellular Respiration: Energy for the Cell	164-165; 167-181
F	6/15	**Exam II**	
M	6/18	Animal Form/Function, Digestion, Homeostasis	871-881; 896-912
T	6/19	Gas Exchange	919-920; 937-944
W	6/20	Circulation	920-937
TH	6/21	Osmoregulation and Excretion	Ch. 44
F	6/22	Thermoregulation; **Quiz 3 Posted**	882-887
M	6/25	Neurons; **Quiz 3 Due (8am)**	Ch. 48
T	6/26	Nervous System	Ch. 49
W	6/27	Endocrine System, Hormones	Ch. 45
TH	6/28	Reproductive System, Hormones	Ch. 46
F	6/29	**Exam III**	
M	7/2	Immune System; **Nature Notes Due (8am)**	Ch. 42
T	7/3	Natural Selection and Adaptation	Ch. 22
W	7/4	Microevolution	Ch. 23
TH	7/5	Macroevolution, Speciation	Ch. 24
F	7/6	Animal Behavior; **Quiz 4 Posted**	Ch. 51
M	7/9	Introduction to Ecology, Species Distributions; **Quiz 4 Due (8am)**	Ch. 52 and 53
T	7/10	Population Ecology	Ch. 53

W	7/11	Species Interactions Community Ecology	Ch. 54
TH	7/12	Conservation Biology, Looking Forward	Ch. 55 and 56
F	7/13	**Exam IV**	

Miscellaneous Course Information

Course Web Site There is a Canvas site associated with this course. All students registered for this class have been enrolled as users in Canvas for this class. You can access this site from your MyUW page or by going to uwmad.courses.wisconsin.edu. If you have problems accessing the site, please contact DoIT at 264-HELP.

Make sure you check the site regularly for lecture notes, as well as important announcements and materials. PDF files corresponding to lecture will be posted on the web site no later than 10 pm the day before each lecture.

Absences: If you miss class for any reason, it is your responsibility to get notes from a classmate and attend discussion to catch up on material.

Communication: Communication will occur through both Canvas and email, so check each frequently.

Laptop Policy: We do not recommend the use of laptops in this course for taking notes. If you do choose to use a laptop in class, any activities not related to class (e-mail, facebook, web-surfing, games, etc.) are not allowed. Computer typing/use is distracting to some students. Any student should feel welcome to make discomfort caused from computer use known to the TA or instructor. To minimize any problems there will be a specific area up front for those who wish to use laptops.

Honors Credit: Students taking this course for honors will be required to attend an informational meeting during the first two weeks of class. If you fail to meet with the instructor during the first two weeks of the semester, you will not be able to take the course for honors. Honors requirements and meeting times are emailed to students who enrolled in honors prior to the first day of class. If you are enrolled in honors and did not receive the informational email, please contact the course instructor.

Study Skills and Tutoring: The Greater University Tutoring Service (GUTS; www.guts.studentorg.wisc.edu) is a volunteer organization that may be able to provide tutoring to students who desire the service.

Students with Disabilities: We wish to fully include persons with disabilities in this course. Please let the instructor know if you have a McBurney Visa listing any accommodations in the curriculum, instruction, or assessments in this course, and we will do our best to meet those

accommodations. We will attempt to maintain confidentiality of any information you share with us.

Academic Honesty: Academic dishonesty and plagiarism are issues that are taken very seriously on this campus and within this course. Important documents on plagiarism are available online (http://www.wisc.edu/students/saja/misconduct/UWS14.html). Please take the time to examine these resources and familiarize yourself with the information available in order to avoid problems with this issue. If you are unclear on the definition of plagiarism or how to avoid plagiarizing, please contact the instructor or TA. If you engage in academic misconduct in this course, you will be penalized with a failing grade for the course. Examples of academic misconduct in Zoology 101 include, but are not limited to the following: having notes out and visible during an exam, using notes during an exam, copying answers from another student during the exam, stealing an exam, using a stolen exam, misrepresenting an academic conflict (e.g. saying you have an academic conflict for an exam when you don't), not attending an exam and claiming that you did, working on an online quiz with another student, plagiarizing material used in essay assignments.

Zoology 102

Zoology 102 lab is a separate course from Zoology 101. You do not need to be enrolled in Zoology 102 to take Zoology 101. Any questions regarding Zoology 102 should be addressed to the Zoology 102 Coordinator (Gale Oakes; goakes@wisc.edu).