ZOO 4307C – Vertebrate Biodiversity

Sections 08A0 (17064), 08A1 (17065), 1934 (17067), 24CA (17068)

Syllabus for Fall 2024

I. Course Description and Prerequisites

Comparative biology of vertebrates, emphasizing morphology, evolution, ecology and behavior. 4 credits.

This course explores the diversity, evolution, adaptations, and ecology of vertebrates. The lectures and labs are coordinated as much as possible so that laboratory work expands upon information provided through lecture and reinforces an understanding of diversity and adaptation. Labs may include field trips.

Prerequisites: BSC 2011 and BSC 2011L with minimum grade of C. Students should be familiar with using and interpreting phylogenies and synapomorphies, as well as basic physiological properties of animals (especially the circulatory system, respiratory system, thermoregulatory and osmoregulatory systems, etc.).

II. Course Meetings

Lectures: TR periods 5-6, 11:45 a.m.-1:40 p.m., Bartram 211

Labs: Section 24CA / 17068 – T periods 7-9, 1:55-4:55 p.m., Carr 120
Section 08A0 / 17064 – W periods 3-5, 9:35-12:35 p.m., Carr 120
Section 08A1 / 17065 – W periods 7-9, 1:55-4:55 p.m., Carr 120
Section 1934 / 17067 – R periods 7-9, 1:55-4:55 p.m., Carr 120

First day of classes: Thursday 22 August 2024 (Labs start 03 September)
Last day of classes: Wednesday 04 December 2024
Final exam period: Thursday, 12 December 2024, 7:30 – 9:30 a.m.

III. Instructors

Course Instructor:

Dr. Nicole Gerlach (she/her)
E-mail: ngerlach@ufl.edu (preferred)
Office: 520 Carr Hall
Office hours: Tues/Thurs immediately following class, or on Zoom by appointment

Teaching Assistants:

Joshua Doby
Sections: 08A0 / 17064
08A1 / 17065
E-mail: jdoby@floridamuseum.ufl.edu

Adrian Lee
Sections: 24CA / 17068
1934 / 17067
E-mail: sz.lee@ufl.edu

IV. Course Communications

A. **Course Website: https://ufl.instructure.com/courses/515211**

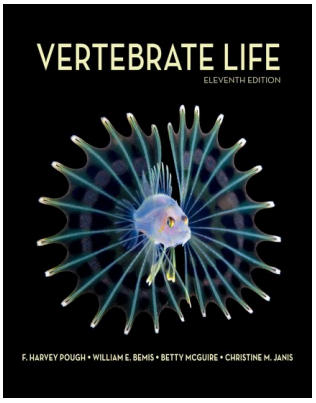
B. **Contacting Your Instructors**: If you have a question about course mechanics or course material that cannot be answered from the syllabus, course announcements, or the course FAQ, please post it to the Discussion Boards on Canvas (see section VIII. "Getting Help", below). If you have a question involving a personal/grade-

related issue, please e-mail your TA or Dr. Gerlach, as appropriate. **All e-mail correspondence must originate from Canvas or from your @ufl.edu account, have your full name in the body of the e-mail, and contain "ZOO4307" in the subject line**. E-mails not meeting these requirements may not be recognized by our e-mail filters, and thus may not be answered. Barring unusual circumstances, expect a reply within 24 hours during the week, and 48 hours over the weekend. E-mails and Discussion Board posts are checked at least once per day, but sometimes not more than that.

C. **Communications From Your Instructors:** Each student is solely responsible for reading and following the instructions, guidelines and schedules in this syllabus, on the course webpage, or announced in class. Not having read the information in this syllabus, on the webpage, or in course announcements will NOT constitute an excuse for missing deadlines, assignments, or other assessments. Please set your preferences in Canvas so that you receive timely notifications of course announcements and other information.

V. Course Resources

A. Textbook



Vertebrate Life, 11e by Pough, F.H., Bemis, W.E., McGuire, B., and Janis, C.M. Oxford University Press (publisher), 2022. (black cover). Available through UF All Access. This textbook is recommended, but not required.

Earlier editions of the textbook may be used if desired; much (but not all) of the information is similar between the editions. Lectures will use the most up-to-date phylogenies from the 11th edition. Students are responsible for knowing the information presented in lecture (11e); relevant phylogenies and other figures will be available on Canvas.

There will also be a current version of the textbook on reserve at the Marston Science Library. Visit the Reserve Materials area to check out this copy.

B. Learning Catalytics

We will use the Learning Catalytics Classroom Response System for clicker/quiz questions. Learning Catalytics allows students to use a laptop, tablet, smartphone, etc. to participate in a variety of types of questions. Information on correctly registering for Learning Catalytics will be available on the course site in Canvas. When setting up your account, **you must use your Gatorlink (ufl.edu) e-mail address**. Using an e-mail address other than your UFL e-mail address will result in you receiving NO credit for Learning Catalytics questions.

C. **Course Website (Canvas)**

All class material - including the syllabus, assignments, announcements, gradebook, and all lab materials – will be posted on the course Canvas website. (For help with Canvas, call the UF Computing Help Desk at 352-392-4357, or visit the Canvas support website: http://help.instructure.com/.

D. Course Fee

This course has an additional course fee of $107.50, which covers the cost of specimens and other materials for the lab.

VI. Course Philosophy

My hope is that this course will serve as an outlet for some of your stress, rather than an additional source of it, and that it will give you a chance to connect with your peers, learn more about the evolution and natural history of vertebrates, and pursue topics that interest you within the scope of the class.

To this end, I propose that all of us (myself included) adopt an approach to this course that is based on the following principles:

- **Flexibility:** We have attempted to plan the course to work as well as possible given the current circumstances, but we have all learned over the past three years that circumstances can change rapidly. We should all expect that some aspects of the course delivery, policy, etc., may need to be changed as the

semester goes on, so that we can achieve a learning experience that is as beneficial as possible for as many people as possible.

- **Communication:** Along with the flexibility to make changes as we go comes the need to communicate about those changes. I pledge to do my best to keep the lines of communication open, and to let you know what's happening in the course as frequently and as clearly as I can. I ask that you do the same – if there is something that is hampering your performance in the course, or that would make things easier for you to do well, please let us know so we can see if it's something we can change.

- **Compassion:** We're all humans, and many aspects of life inside and outside the classroom can be quite challenging. The more empathy, kindness, and grace we can extend – both to others and, equally importantly, to ourselves – the better able we will be to meet those challenges.

- **Diversity**: In this classroom, all students will be included, heard, and treated with respect. We will promote a safe, healthy, and fair learning environment where all individuals are provided with equitable opportunity to participate, contribute, and succeed. Student success is enhanced by innovation and creativity of thought that inclusive classrooms facilitate. The success of an inclusive classroom relies on the support and understanding of you and your peers. Students are encouraged to speak up and share their views while also engaging respectfully with others. Diversity, equity, inclusion, and intersectionality have a place in every classroom, just as they have a place in the study of biology (especially biodiversity!).

- **Community:** The success of this course is going to depend on us coming together as a community, not only to learn together, but also to learn from each other, to support one another, and to help keep each other safe and well. Many of the assignments in this course are built around this goal of students learning about something that interests them, and then sharing that knowledge with others in the course. The more that everyone participates in these activities, the more we all get to learn (your professor and TAs included!)

- **Safety:** My goal this semester is to provide everyone the best learning experience possible while also keeping everyone as safe as possible. Out of respect for your classmates and instructor, we ask that you **PLEASE DO NOT COME TO CLASS/LAB IF YOU ARE EXPERIENCING SYMPTOMS OF COVID-19 OR OTHER TRANSMISSIBLE ILLNESS.** If this is the case, we will work with you to arrange alternate ways for you to cover the lab material without being penalized or missing points (see below under "VIII.B Attendance".)

VII. Course Objectives

This course explores the structure and function of vertebrates with an emphasis on trends in vertebrate evolution and biodiversity. By the end of the course, students will:

- Be able to explain how diverse vertebrate species have evolved in response to biotic and abiotic challenges, and how these various selective pressures have led to various vertebrate adaptations, including morphological, physiological, ecological, and behavioral traits.
- Understand major events in the evolutionary history of vertebrates, such as the origin of land vertebrates, and be able to place these events in the appropriate geological context.
- Be able to classify vertebrate species to the appropriate phylogenetic group using correct scientific names, and describe the relationships between the major groups of vertebrates, and the synapomorphies that define each group.
- Be able to identify major anatomical structures in diverse vertebrate species, including cartilaginous and bony fishes, amphibians, mammals, reptiles, and birds.
- Be able to look at a living or fossil vertebrate and be able to make logical predictions about its way of life.
- Understand how differences in life history have arisen in various vertebrate groups, and how these differences affect conservation concerns in each group.

VIII. Course Policies

A. **Time Commitment**
The UF College of Liberal Arts and Sciences assumes that each student will devote 3-4 hours per week per credit-hour to each course during the regular semester. Because ZOO 4307C is 4 credits, each student should therefore expect to devote an average of 12-16 hours per week to this course in a 15-week semester.

B. **Attendance**
Absences for lectures / exams: PLEASE DO NOT COME TO LECTURE IF YOU ARE EXPERIENCING ANY SYMPTOMS OF COVID-19 OR OTHER TRANSMISSIBLE ILLNESS. Unavoidable emergency circumstances (e.g. illness, hospitalization, family emergencies, etc.) that prevent you from attending the lecture sections or cause you to miss a deadline or exam require documentation (e.g. a doctor's note, a photo with your COVID test results and your name and date, or a letter from the Dean of Students office: https://care.dso.ufl.edu/instructor-notifications/) in order for it to count as an excused absence.

Absences for labs: Documented emergency circumstances (as above) should be sent to your lab TA if they will cause you to miss lab in a given week. Additionally, PLEASE DO NOT COME TO LAB IF YOU ARE EXPERIENCING ANY SYMPTOMS OF COVID-19 OR OTHER TRANSMISSIBLE ILLNESS. If you are feeling unwell on the day of your lab section, please send the documentation (as above) to your lab TA as soon as possible on or before the day of your lab. They will discuss with you your options for making up the lab material for that week.

C. Quizzes and Exams
Any material covered during the lectures or assigned in the reading may be included in the lecture exams. This can include textbook reading and illustrations, the lectures themselves, and any supplemental videos. Similarly, any material covered in the lab may be included in the lab quizzes unless it is explicitly marked as optional. Take notes!

Dr. Gerlach will post lecture exam keys that highlight the salient points for which credit is awarded. We will consider re-grade requests on a case by case basis, however, we will not argue about point assignments (i.e. how much a particular element of a question was worth). To request a re-grade, write a brief paragraph explaining why you believe your answer to a question was incorrectly scored, and submit it along with your original exam paper to Dr. Gerlach. Re-grade requests must be submitted within one week of the exam scores

being posted.

Make-up exams will **only** be available in cases of medical and/or family emergencies when documented by an accompanying letter from the Dean of Students, or for official academic activities (in which case the instructor should be contacted a minimum of two weeks in advance). The student is responsible for scheduling timely make-up exams with the instructor as soon as possible.

D. **Late Work**

All written assignments should be submitted to Canvas by the assigned deadline. Late work will be subject to a 20% penalty for every day it is late. For example, an assignment initially worth 10 points will be subject to a 2 point penalty if it is submitted up to 24 hours after the deadline, a 4 point penalty up to 48 hours, etc. Assignments may not be submitted more than four days after the assigned deadline without a notification from the Dean of Students documenting a medical/family emergency, as described above.

LearningCatalytics questions and Canvas quizzes close at the posted deadline, and may not be submitted late.

E. **Classroom Behavior**

Please be respectful of your fellow students, including in class, in lab, during Zoom meetings, and in your interactions on Canvas. This is particularly important in discussion boards and peer reviews where you are commenting on the work of other students. Students who persist in being rude or disrespectful will be blocked from future participation (with corresponding loss of points). Recording, photographing or screencapping, downloading, or otherwise distributing any student presentations or other student-created material from this course without permission is strictly prohibited.

Students are encouraged to employ critical thinking and to rely on data and verifiable sources to interrogate all assigned readings and subject matter in this course as a way of determining whether they agree with their classmates and/or their instructor. No lesson is intended to espouse, promote, advance, inculcate, or compel a particular feeling, perception, viewpoint, or belief.

Lab guidelines: Closed-toed shoes are required while in the lab room. No food or drink is allowed. This lab uses preserved specimens from our teaching collection and from the Florida Museum; many of these are rare and/or delicate, and should be handled with care and respect. Your lab TAs will go over other expectations for lab safety and appropriate lab behavior during the first week of labs. Additionally, out of respect for your classmates and instructors, we ask that you please do not come to lab if you are experiencing any symptoms of illness (see section VIII.B, above).

F. Office Hours

Open drop-in office hours with Dr. Gerlach will occur on Tuesdays and Thursdays after the end of class. Students with a conflict at that time, or who need to meet with Dr.Gerlach or their TA on a 1-on-1 basis should e-mail us to set up an appointment.

G. Grammar

Correct grammar, punctuation, spelling, capitalization and paragraphing should be used in any college level submission, including exams and typed reports. We will take note of spelling and grammar and we will grade accordingly. There are multiple cases where two distinct groups of vertebrates may have names with similar spelling, so be careful: spelling counts!

H. Recordings

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal

or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

IX. UF Policies

A. Academic Honesty

All students registered at the University of Florida have agreed to comply with the following statement:

> "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

In addition, on all work submitted for credit the following pledge is either required or implied:

> "On my honor I have neither given nor received unauthorized aid in doing this assignment."

Cases of plagiarism; falsification of information; unauthorized collaboration with others on exams, quizzes, and other assignments; use of unapproved materials on exams or quizzes; or other forms of academic dishonesty will not be tolerated, and will result in grade penalties and/or other sanctions. Similarly, generative AI tools (like ChatGPT and similar services) should not be used for any assignments or activities, and their unauthorized use will be treated similarly to other cases of academic dishonesty.

If you have knowledge of any instances of academic dishonesty in this class, please notify the instructor (with screenshots, if applicable) or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at: https://catalog.ufl.edu/UGRD/student-responsibilities/.

B. Accommodations for Students with Disabilities

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information at: https://disability.ufl.edu/. Students should provide their DRC accommodation letter to Dr. Gerlach as soon as possible, ideally by the second week of classes. No accommodations are available to students who lack this documentation, and accommodations are not retroactive. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

C. Drop/Add/Withdrawal

A student can drop/add during the drop/add period with no penalty. After drop/add, a student who drops will receive a W until the date listed in the academic calendar. After that date, the student may be assigned an "E" (fail). Note: it is the responsibility of the STUDENT to withdraw from a course, not the instructor. Failure to participate/complete the class is NOT a drop.

D. Teacher Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

X. Getting Help

Asking for help is not a sign of weakness or failure! No one understands everything, and no one can do it all on their own. One of the least appreciated, but most useful things you can learn in college is what to do when you're facing a challenge that you may not be able to overcome on your own. We want you all to succeed, and there are tons of resources out there for the asking, so please: ASK!

A. Computing Problems

For issues with technical difficulties in Canvas, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 1
- https://lss.at.ufl.edu/help.shtml

It is each student's responsibility to check their LearningCatalytics gradebook in a timely fashion to be sure their submissions are being properly recorded. **For problems with Learning Catalytics, call the following support number**: 1- 800-677-6337 or visit https://learningcatalytics.com/pages/support .

B. University Support Services

College can be a very stressful time in a person's life. Resources are available on campus to help students meet academic goals and solve personal problems that may interfere with their academic performance. If you find that you are having difficulty emotionally or academically, there is substantial support available. See "A Self Help Guide for Students" or contact one of the following services:

1. UF Counseling and Wellness Center, Radio Rd Facility, 392-1575
2. Dean of Students Office, 202 Peabody Hall, 392-1261
3. Career Resource Center, Reitz Union, 392-1601
4. CLAS Academic Advising Center, Farrior Hall, 100 Fletcher Drive, 392-1521
5. UF Field and Fork Pantry, 564 Newell Dr., 294-3601

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Dean of Students (202 Peabody Hall, 392-1261) for support. Furthermore, please notify your instructor(s) if you are comfortable in doing so. This will enable us to provide any resources that we may possess.

C. Other Questions

If you have non-tech-support questions about other aspects of the course, check the following sources first to see if it is already answered, **before** e-mailing your instructors:

- Course Syllabus
- Weekly Schedules, List of Graded Work, and other Canvas pages
- Course Announcements (this is the primary means that your instructors have to communicate with you in a timely manner)
- Course FAQ Discussion Boards

If you still cannot find the answer to your questions:

- If it is a question that others might find useful to know the answer to as well (regarding the course material, specifics of an assignment, etc.), post it to the discussion board.
- If it is a question specific to you (e.g. account or grade specific), contact Dr. Gerlach or your TA via e-mail.

XI. Assessments and Grading

A. Course Structure

Final grades will be based on performance in both lecture and lab.

	Graded Item	Percent of Final Grade
Lecture:	Lecture Exam 1	12
	Lecture Exam 2	12
	Lecture Exam 3	12
	Lecture Learning Catalytics	12
	Get to Know a Vertebrate	4
	Conservation Essays	8
	Weekly Discussions	4
	Total Lecture	64
Lab:	Lab Quizzes	10
	Lab Assignments	20
	Local Biodiversity Assignment	6
	Total Lab	36

B. Assignments

All assignments must be submitted to Canvas by 11:59 p.m. on the scheduled due date unless otherwise specified. Assignments submitted via e-mail will not be accepted. TurnItIn software will be used to check all assignments for originality. All assignments must be submitted as files; links to Google Docs or similar external services will not be accepted.

- **Conservation Reports**
  Each student will be asked to research and write two short (~750 word) essays detailing a conservation concern of their choice that affects a particular taxonomic group of vertebrates. Students should include information about the source of the conservation threat, which species are affected, what aspects of their biology make them susceptible, and what (if anything) can or has been done to alleviate the concern. These essays should include references to news media stories as well as primary literature related to the conservation issue at hand. Each student will also be responsible for peer-reviewing the essays of two of their classmates for each assignment. These peer reviews will be submitted via Canvas, due one week after the due date for the essay.
- **Local Biodiversity Assignment**
  Students will complete a series of observations and identifications of local vertebrate species as part of a

semester-long project. Observations, identifications, and descriptions will be uploaded by each student to the website http://www.inaturalist.org. More details will be available on the course website.

- **Get to Know a Vertebrate Presentations**
  Students will each give a short presentation (~10 minutes) during the scheduled lecture time over the course of the semester. This presentation should cover the phylogeny, natural history, and peer-reviewed research on an unusual or unfamiliar vertebrate species of their choice. Students are also expected to attend and participate (ask questions) during their classmates' presentations. Details on the presentation and participation requirements will be available on Canvas.

- **Learning Catalytics**
  The Learning Catalytics (LC) Classroom Response System will be used for both in-class and out-of-class clicker/quiz questions. Out-of-class summary/review LC questions will be due by 11:59 p.m. on the day of the lecture.

  Most Learning Catalytics questions will be scored as 1 point for a correct answer and 0.5 points for an incorrect answer. Learning Catalytics has an answer/discuss/answer feature in which a question is presented for a second time after students have discussed the question with their classmates. In these cases, both the initial question and the second presentation are each worth 1 point. No participation credit will be given without a submitted answer, so please make sure that your device is charged and has a stable connection to the internet. Your final Learning Catalytics score will be determined as the proportion of possible points that you earned, scaled to 80%. Thus, if you earn 80% or more of the possible Learning Catalytics points, you will receive 100% of the course points for this assignment.

- **Bi-weekly Discussions**
  Approximately every other week we will have a short discussion assignment in Canvas. These discussions are meant to help foster a sense of community among students while providing an opportunity to practice with and reinforce the course material. For each discussion, students are expected to answer the discussion prompt, and then reply to at least two of their classmates.

- **Lab Quizzes**
  Short, closed-book quizzes over the lab material will be given on a weekly or bi-weekly basis. More details will be available on Canvas and in the lab.

- **Lab Assignments**
  Each week in lab will have a short pre-lab assignment and some form of post-lab assignment for you to complete that addresses the lab material from that week. The exact nature of these assignments may vary week-to-week. More information will be available on Canvas and in the lab.

C. Grading

Minimum grade cutoffs are listed below. These cutoffs will not be raised; in other words, if you receive 93% of the possible points, you are guaranteed to earn an A grade. A curve may be applied to individual exams and/or to the final scores, depending on the class average, and will be communicated clearly if applicable. However, we will *not* adjust or round-up grades on an individual basis for any reason.

Point Range (%)	Letter Grade
≥ 93	A
≥ 90	A–
≥ 87	B+
≥ 83	B
≥ 80	B–
≥ 77	C+
≥ 73	C
≥ 70	C–

≥ 67	D+
≥ 63	D
≥ 60	D–
< 60	E

Note that the current UF policy for assigning grade points is available at the following undergraduate catalog web page: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.

D. **Incomplete ("I")**
If a student has completed the majority of the course work with a passing grade and particular DOCUMENTED circumstances prevent completion of the course in the time allotted, the student may, with the agreement of the instructor, be assigned an "I" pending resolution of the grade. All incompletes MUST be resolved by the end of the following term or the student will receive a grade of "E" (failing).

E. Special Treatment
Please do not request individual special treatment regarding grading at the end of the semester; we do not adjust grades for individuals for any reason. Plan to do well on all exams, quizzes, and other assignments from the beginning of the semester; if you are having difficulty in the class, please let your instructors know sooner rather than later.

XII. Disclaimer

This syllabus represents the current plans and objectives; however, schedules, requirements, and assignments may change throughout the semester as the need arises. Such changes, communicated clearly, are not unusual and should be expected.

XIII. Weekly Schedule

NOTE: The following schedule is tentative; lecture topics and coverage may change. The updated schedule and specific reading assignments will be announced on the course website throughout the semester.

Wk #	Lec	Date	Lecture Topic	Chapter (11e)	Lab Topic
1		T 22 Aug	No class yet!		NO LAB
	1	R 22 Aug	Introduction / Phylogenetics	Chapter 1 (especially 1.2, 1.3, 1.4, and 1.7)	
2	2	T 27 Aug	Chordates	2.1-2.2	NO LAB
	3	R 29 Aug	Features of Vertebrates	2.3-2.6	
3	4	T 03 Sep	Jawless Fishes and the Evolution of Jaws	3	Phylogeny, Chordates, Agnatha
	5	R 05 Sep	Living in Water I	4.1	
4	6	T 10 Sep	Living in Water II	4.2-4.4	Living in Water: Form & Function
	7	R 12 Sep	Chondrichthyes I	6.1-6.4	
5	8	T 17 Sep	Chondrichthyes II	6.4-6.6	Shark Diversity
	9	R 19 Sep	Actinopterygii I	7.1-7.3	
6		**T 24 Sep**	**EXAM 1**	**Covers Lect. 1-8**	Bony Fish Diversity
	10	R 26 Sept	Actinopterygii II	7.3-7.8	
7	11	T 01 Oct	Sarcopterygii & The Transition to Land	7.1, 8	Amphibians I
	12	R 03 Oct	Living on Land	11, 13.4	
8	13	T 08 Oct	Amphibia I	9.1, 12.1	Amphibians II
	14	R 10 Oct	Amphibia II	12.2-12.6	
9	15	T 15 Oct	Amniotes	9.2-9.3, 13	Reptiles I
	16	R 17 Oct	Diapsids & Lepidosaurs I	9.3, 10.3, 15.1, portions of the rest of 15 focusing on lizards	
10	17	T 22 Oct	Lepidosaurs II	Portions of 15 focusing on snakes	Reptiles II
	18	R 24 Oct	Turtles	16	
11		**T 29 Oct**	**EXAM 2**	**Covers Lectures 9-17**	NATL or FLMNH Field Trip
	19	R 31 Oct	Crocodylia	17	
12	20	T 05 Nov	Dinosauria I	18	Archosaurs I
	21	R 07 Nov	Dinosauria II / Aves I	19, 21.2-21.3	
13	22	T 12 Nov	Aves II	21.1, 21.4-21.11	Archosaurs II
	23	R 14 Nov	Synapsids	22.1-22.3	
14	24	T 19 Nov	Mammalia I	22.3-22.4	Mammals
	25	R 21 Nov	Mammalia II	20.3, 23.1-23.3	
15		T 26 Nov	Thanksgiving Break – NO CLASS		NO LAB
		R 28 Nov	Thanksgiving Break – NO CLASS		
16	26	T 03 Dec	Mammalia III	23.3-23.6	NO LAB
		R 05 Dec	Reading Days – NO CLASS		
		R 12 Dec (7:30 – 9:30 am)	**EXAM 3**	**Covers Lectures 18-26**	