

Biology 421-101: Comparative Vertebrate Anatomy

INSTRUCTOR

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TA

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COURSE SCHEDULE

Lecture: Monday, 6:00pm-8:50pm

Lab: Wednesday, 6:00pm-8:50pm

Location: G-08

COURSE DESCRIPTION: This course introduces students to the groups of vertebrates and explores the anatomical evolution of vertebrates within the context of the functional interrelationships of morphology and the changing environments to which vertebrates have adapted. An ideal entry point into the ways living creatures interact with their immediate physical world, we examine how the forms and activities of animals reflect the materials available to nature and consider rules for structural design under environmental forces.

REQUIRED TEXTBOOK: Shubin, Neil (2008) Your Inner Fish: A journey into the 3.5 billion-year history of the human body. Pantheon Books. ISBN: 978-0375424472.

Available for purchase at the NJIT Bookstore.

BODYVIZ PORTAL: <https://www.bodyviz.com/>

ATTENDANCE POLICY: Attendance is required. It will be taken, recorded, and factored into the class participation grade.

REASONABLE ACCOMMODATION: If you have a special need that may require accommodations or assistance, please inform me of that fact as soon as possible and no later than the end of the second class meeting. Students with disabilities who require accommodations must contact the Office of Accessibility Resources and Services (OARS). Email: OARS@njit.edu. Location: Kupfrian 201.

MAKE-UP POLICY:

▪ **Assignments/Exams:** In order for an absence to be excused, students must contact the Office of the Dean of Student Affairs as soon as possible, following their knowing that they will be missing a class. For example: This means if you wake up in the morning and are too ill to come to class, you should email them immediately. Arrangements can then be made by that office. Documentation of your absence should then be provided to the Office of the Dean of Student Affairs (doctors note, court notice etc...). Under no circumstances are you to contact the instructor or provide them with details of the reason you missed class or an assignment. It is your right to keep that information private and should only be detailed to the Office of the Dean of Student Affairs.

▪ **Late Work:** Assignments are due by the beginning of the lectures on Monday. If you must be absent on the day work is due, it is your responsibility to turn it in early or make arrangements for someone else to turn it in on the due date. Other possibilities include submitting an electronically version via email. Unexcused late work will receive a 10% penalty for every day late.

ACADEMIC INTEGRITY: Cheating is strictly prohibited and devalues the degree that you are working towards. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: [NJIT Academic Integrity](#). Please note that it is my professional obligation and responsibility to report any academic misconduct directly to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing, using artificial intelligence tools (such as ChatGPT) without explicit permission, or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. For more information on the university's policy regarding the use of Artificial Intelligence, please review: [NJIT Use of AI](#). If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu.

Grading	Points
Assignment	10 pts
Class Participation	10 pts
Lecture Exams	20 pts
Lab Exams	20 pts
Final Exam	40 pts
Total	100 pts

Grading Scale			
A	90-100	C	70-74
B+	85-89	D	65-69
B	80-84	F	Below 65
C+	75-79		

COURSE OUTLINE:

Dates	Lecture	Lab	Readings	Homework
9/3	NO LECTURE	Introduction and setup BodyViz		
9/8, 9/10	Finding Your Inner Fish	BodyViz	Chapter 1	
9/15, 9/17	Getting Grip	BodyViz	Chapter 2	Assignment 1 due
9/22, 9/24	Handy Genes	BodyViz	Chapter 3	
9/29, 10/1	EXAM 1 (Ch.1-3)	LAB EXAM 1 (Bodyviz)		
10/6, 10/8	Teeth Everywhere	BodyViz	Chapter 4	
10/13, 10/15	Getting Ahead	BodyViz	Chapter 5	Assignment 2 due
10/20, 10/22	The Best-Laid (Body) Plans	BodyViz	Chapter 6	
10/27, 10/29	EXAM 2 (Ch. 4-6)	LAB EXAM 2 (Bodyviz)		Assignment 3 due
11/3, 11/5	Adventures in Bodybuilding	BodyViz	Chapter 7	
11/10, 11/12	Making Scents	BodyViz	Chapter 8	Assignment 4 due
11/17, 11/19	Vision	BodyViz	Chapter 9	
11/24, 11/26	EXAM 3 (Ch. 7-9)	NO LAB		
12/1, 12/3	Ears	BodyViz	Chapter 10	Assignment 5 due
12/8, 12/10	The Meaning of It All	BodyViz	Chapter 11	
TBA, Week of 12/14	FINAL CUMMULATIVE EXAM			