

BIO128

Off Campus - Online

COURSE INSTRUCTOR: Mr. Douglas Heath
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APPOINTMENT INFORMATION: Please email me at the above address

REQUIRED TEXTS: OpenStax Biology 2e. This is a **free, open source textbook** (Lrnr is based on this). Your Lrnr purchase will give you access to the chapters of the book covered in the course. The link will give you access to the entire text.

https://assets.openstax.org/oscms-prodcms/media/documents/Biology2e-WEB_ICOFkGu.pdf

Lrnr, an Adaptive Learning Platform (online resource) is required (\$40-\$45)

You can purchase your access through the bookstore or through this website:

<https://enroll.lrn.us/product/courses/?section=QZFM8IA8PHBE>

CATALOG COURSE DESCRIPTION: A survey of the animal kingdom and protists in addition to an introduction to the eleven organ systems in animals with an emphasis on human anatomy and physiology. Students who take this course may not take BIO216. (4 credits)

This course is housed within the College of Arts and Sciences and the Department of Natural Sciences.

STUDENT LEARNING GOALS:	Assignment* Measuring Goal Attainment:	Other Alignments	
		Core / Skill	Dept / Prg
1. The student will become biologically literate by enhancing the awareness and understanding of the life processes that sustain us. (K)	Exams, Discussions, Presentations	2a	1/2
2. The student will demonstrate knowledge of basic concepts in biology; structure and function of the human body, so that they may be able to use wisdom in evaluating current biological discoveries and developments. (K)	Exams, Lab Reports, Lab Exams	2a	1,3/2,4
3. The student will be encouraged to act responsibly for the care of the environment. (D)	Discussions	5b	4/4
4. The student will develop the ability to think critically and write skillfully. (S)	Paper/poster presentation, lab reports	2b, 2c	2,3/3
5. The student will confer with peers and professor about a research topic pertaining to biology, find and interpret scientific information, then write a paper	Presentation	2b	2/3

and give an oral presentation with the findings. (IL Standard 1:1a,b,d; 3:1a) (S)			
6. The student will recognize the importance of pertinent bioethical issues in order to enlarge his vision of God as the Creator and Sustainer of the natural world, who has given us a glimpse of His greatness, creativity, and power. (IL Standard 4:3.b,d) (D)	Discussions	2c, 5a, 5b	4/4
<p>The above student learning goals are aligned with the institutional core academic goals and skills and the department's and/or program's goals stated in the college catalog (https://www.nyack.edu/site/nyack-catalog/). Attainment of goals is evaluated by the identified assignments.</p> <p>*Assessments primarily serve as measures of individual student growth and goal attainment. Secondly, samples of student work and/or evaluations of student work may be used by the School/Department and Institution for improving student learning and as evidence of program effectiveness. Care will be taken to protect student identity.</p>			

ASSIGNMENT DESCRIPTIONS:

All due dates and times are listed in Eastern Standard Time (EST).

1. Lecture Exams (3) and Final

- Three lecture exams and one final exam will be given according to the schedule that is attached. Students are expected to take exams when scheduled. In general, make-ups will not be given. In the event of a significant illness or emergency, I must be notified before the exam and proper documentation submitted. Make-up tests must be taken by the next lecture session after the test date, as tests will normally be returned at that time. Exams are scheduled to be given online and completed on the scheduled day. The best 3 exam grades (including the final), will count towards your final grade.

Exam 1 – <u>10/11/22</u>	The Study of Life, Animal Diversity, Invertebrates, Vertebrates
Exam 2 – <u>11/01/22</u>	The Animal Body, Circulatory System, Immune System, Respiratory System.
Exam 3 – <u>11/29/22</u>	Osmotic Pressure and Excretion, Nervous System, Special Senses, Sensory System.
Final – <u>12/14/22</u>	Musculoskeletal System, Endocrine System, Animal Reproduction and Development

2. Lrn: Adaptive Learning Platform

- Lrn is an adaptive online teaching and learning platform, which we will be using for this course. Weekly assignments – chapter reading, reading quizzes, and homework are required according to the schedule posted on the Lrn Website. This platform contains several study aids which are

designed to assist in your learning. Assignments are to be completed independently and submitted on time. Late assignments will not be accepted or subject to late penalties.

3. Lab Assignments

- The lab assignments are detailed in the Lab Manual purchased in the bookstore. **Your lab instructor will provide further information on requirements of the lab program.** Lab quizzes may be given throughout the semester based on information in the lab manual or work done in the lab. In the *Laboratory Course* section following the class schedule, there is a *possible rubric* for use in the lab program. Again, your lab instructor will provide further information on requirements and the grading aspect of the lab program.

GRADING COMPOSITION AND SCALE:

Grades for this class are calculated for each category of grading. Each category is assigned a percentage of the total grade. The course grade is based on the following components:

- Laboratory 25%
- Midterm & Final Exams (best 3 exams, 15% each) 45%
- Lnr Program (homework, activities, quizzes, etc.) 30%

As outlined in the catalog, all grades are calculated based on the following scale of Letter Grade/Percentile Equivalents:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93-100%	90-92%	88-89%	83-87%	80-82%	78-79%	73-77%	70-72%	68-69%	63-67%	60-62%	0-59%

Care should be taken to perform at one's best in each class. Minimum course, program, and institution grade requirements are outlined in the college catalog (<https://www.nyack.edu/site/nyack-catalog/>), falling below which may affect timely degree completion and/or financial assistance.

CARNEGIE UNIT ACCOUNTABILITY

In addition to class time, the estimated homework hours for this course, by category, are as follows:

Type of Work	Hours
Required Reading	30
Studying for Exams/Quizzes	50
Research	5

Writing Assignments	10
Other	15
Total Homework Hours	120

In order to demonstrate accountability to reach the student learning goals listed above, this course holds to a professional academic standard known as the Carnegie Unit. This impacts the amounts of reading, “seat time” (instructional schedule set by the Registrar’s Office), and outside work assigned. Standardized expectations are 15 hours of class and 30 hours of homework per credit (**45 hours of class time and 90 hours of homework for a 3-credit course**). Accreditors and the US Department of Education have set these standards so as to assure that students receive a fair education.

COURSE OUTLINE AND CALENDAR

All dates and times are listed in Eastern Standard Time (EST).

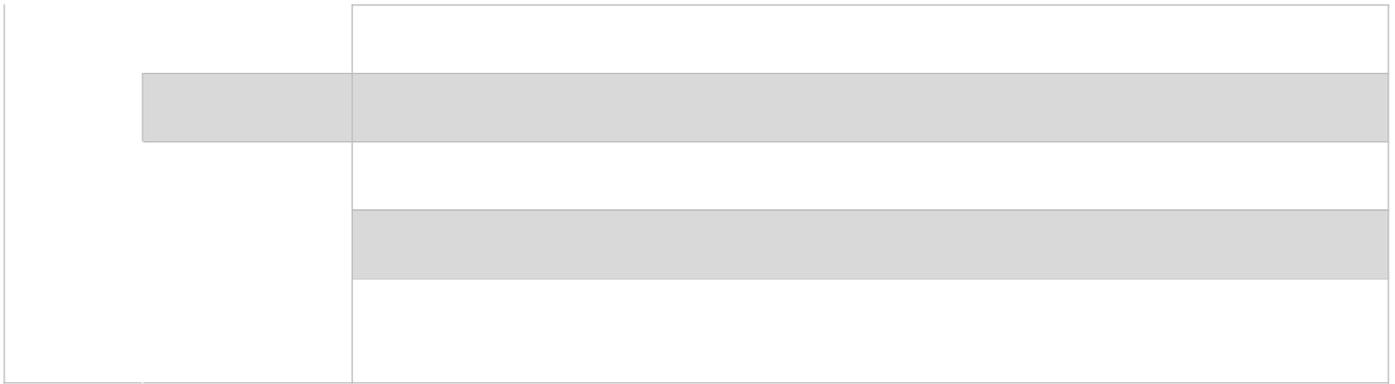
Week 1	Overview
9/14/22	<ul style="list-style-type: none"> ● Overview and Expectations ● The Study of Life ● Questions on Introduction and course expectations
	<p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Read The Study of Life ● Lrn Assignments: The Study of Life ● Read Introduction to Animal Diversity ● Begin Reading Invertebrates ● Watch Video: Simple Animals: Sponges, Jellies & Octopuses https://youtu.be/tlfsHPpkSPs
Week 2	Overview
9/21/22	<ul style="list-style-type: none"> ● Animal Diversity and The Invertebrates
	<p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Complete reading Invertebrates ● Watch video: Complex Animals: Annelids & Arthropods

		<p>https://youtu.be/YQb7Xq0enTI</p> <ul style="list-style-type: none"> ● Lrnr Assignments: Invertebrates ● Begin reading Vertebrates
Week 3		Overview
		<ul style="list-style-type: none"> ● Vertebrates
		Activities, Assignments and/or Exams
	9/28/22	<ul style="list-style-type: none"> ● Complete Reading Vertebrates ● Watch video: Chordates https://youtu.be/kgZRZmEc9j4 ● Lrnr Assignments: Vertebrates ● Read The Animal Body: Basic Form and Function
Week 4		Overview
		<ul style="list-style-type: none"> ● The Animal Body: Basic Form and Function
		Activities, Assignments and/or Exams
	10/05/22	<ul style="list-style-type: none"> ● Lrnr Assignments: The Animal Body: Basic Form and Function ● Begin Reading Chapter 35
	EXAM PREP	<ul style="list-style-type: none"> ● Study for Exam #1: The Study of Life, Animal Diversity, Invertebrates, Vertebrates.

Week 5		Overview
	EXAM 10/11	<ul style="list-style-type: none"> ● <i>Exam #1: The Study of Life, Animal Diversity, Invertebrates, Vertebrates. 1 hour timed exam anytime on Tuesday, 10/11</i> ● The Circulatory System
	10/12/22	<p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Complete Reading The Circulatory System ● Lrnr Assignments: The Circulatory System ● Begin Reading The Immune System ● Watch video: The Circulatory System https://youtu.be/NJzJKvkWWDc
Week 6		Overview
		<ul style="list-style-type: none"> ● The Immune System
	10/19/22	<p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Complete reading The Immune System

	11/02/22	<p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Complete Reading Osmotic Pressure and Excretion ● Lrn Assignments: Osmotic Pressure and Excretion ● Start reading The Nervous System ● Watch video: The Nervous System https://youtu.be/UabDiuTtUOM
Week 9		<p>Overview</p>
	11/09/22	<p>The Nervous System</p> <p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Lrn Assignments: The Nervous System ● Watch video: The Nervous System https://youtu.be/UabDiuTtUOM ● Read Special Senses ● Start Reading Sensory Systems
Week 10		<p>Overview</p> <ul style="list-style-type: none"> ● Finish The Nervous System ● Special Senses and Sensory System

11/16/22	<p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Lrn Assignments: Special Senses and Sensory Systems ● Read The Musculoskeletal System ● Read The Endocrine System
EXAM PREP	<p>Study for Exam #3: Osmotic Pressure and Excretion, Nervous System, Special Senses, Sensory System.</p>
Week 11	<p>Overview</p>
Exam 11/29	<p><i>Exam 3: Osmotic Pressure and Excretion, Nervous System, Special Senses, Sensory System. 1 hour timed exam anytime on Tuesday, 11/29</i></p> <ul style="list-style-type: none"> ● The Musculoskeletal System ● The Endocrine System
11/30/22	<p>Activities, Assignments and/or Exams</p> <ul style="list-style-type: none"> ● Lrn Assignments: The Musculoskeletal System ● Lrn Assignments: The Endocrine System ● Read Animal Reproduction and Development
Week 12	<p>Overview</p>



Laboratory Course

LAB INFORMATION (POSSIBLE GRADING RUBRIC)

The Laboratory component is worth 25% of the Bio128 course grade. Student grade will be based on lab quizzes, notebook checks, homework assignments, and lab reports.

Your lab grade will consist of the following elements:

- 20% Concept Quizzes (announced one class meeting in advance)
- 40% Annotations
- 25% Assignments
- 15% Presentation

100% Overall % Grade

COURSE POLICIES

- **Reasonable Accommodation:** Any student eligible for and requesting academic accommodations due to a disability is required to provide a letter of accommodation from the Office of Disabilities Support Services within the first six weeks of the beginning of classes.
- **Student Identity Verification and Privacy:** Student identity in the online course companion is verified via measures for online course enrollment (student name, matching institutional email address, and student ID#) and online course login (secure login and pass code via my.nyack.edu portal). Use of the Edvance360 Software and System is implemented and maintained in compliance with the Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. § 1232g; 34 CFR Part 99, and assurances are provided that information protected by FERPA is secure from people unauthorized to use the System.
- **Attendance/Absence:** Attendance is marked in the Faculty Portal each class period. Missing any class time is detrimental to students and should be avoided. Students, however, are permitted one hour of absence (excused or unexcused) for each credit hour (equivalent to 1 lecture class and 1 lab period) before grading penalties are imposed. Additional unexcused absences beyond this amount will result in

a reduction of 2.5% per absence per lecture from your final grade. Each lab overcut will result in a 5% reduction from your final grade. A student must contact the professor via email or voice mail before the end of a missed class. All assignments are due on the date designated. If the professor is absent, work equivalent to the “seat time” missed will be posted in the E360 course companion in order to mark attendance and to fulfill federal/state regulations.

- **Late Assignments/Extensions:** Late assignments will be penalized 10% for each day that it is late. Assignments cannot be handed in past the last day of the class, unless an extension request was approved by the professor and filed with the Registrar’s Office no later than the last day of the class (before final exams week begins—see *Extensions for Late Work policy in the college catalog*).
- **Make-Up Exams:** Students may not be absent from an announced examination period except for reasons beyond their control. In the event of an unavoidable absence, the student must arrange for a make-up examination with the instructor.
- **Academic Integrity and Plagiarism:** In a Christian college academic integrity is particularly important. Any student caught cheating or plagiarizing (the unacknowledged use of other people’s words or ideas as though they were your own) will be subject to the penalties as *described in the plagiarism policy in the college catalog and student handbook*.
- **Academic Quality:** Remember that grades for assignments are based not only on the completion of the assignment but the **quality** of work produced. The higher the **quality** of skills and abilities demonstrated, in areas such as expression and depth of thought, organization, writing, research, reporting, and observation, the higher the grade given to the assignment. All written assignments will be completed using the indicated style guide.
- **Style Guide for written work:** Written work should be in APA format.
- **Writing Center:** Because ALL Writers Need Feedback - The Writing Center is available to assist all students with writing for any classes. Peer Writing consultants, who are fellow Nyack College students and alumni, are trained to help with all stages of the writing process, from brainstorming to organizing to revising and editing papers. Plan well in advance to bring the assignment sheet, or a draft of the paper, and specific questions/concerns to any of the Center’s locations. Students are also able to have access to online consultations through Google Docs via their nyack.edu email account. The Center’s services are free. Students can drop in and work with a consultant or make an appointment through the website or by calling the Center. For more information about Writing Center services and locations, please visit the website: <https://www.nyack.edu/writingcenter/>
- **Communication with Instructor:** Nyack College email will be the primary mode of communication with students, unless specified otherwise. Please check your email regularly.
- **Grievance Procedure Policy:** Students who have a grievance relative to academic policies, grades given, or other academic judgments should first seek to resolve their complaints with the professor. If resolution is not reached, the matter may be directed to the department head or program director of the class in question. If this does not solve the problem, a formal complaint may be made in writing to the respective Academic Dean whose judgment is final. See *the full Grievance Procedure Policy posted in the college catalog*.
- **Discrimination (Title IX):** Sex and gender discrimination, including sexual harassment, are prohibited in educational programs and activities, including classes. Title IX legislation and College policy require the College to provide sex and gender equity in all areas of campus life. If you or someone you know has experienced sex or gender discrimination, sexual harassment, sexual assault, intimate partner violence, or stalking, we encourage you to seek assistance and to report the incident through resources available at www.nyack.edu/safetyandsecurity. Confidential assistance is available at the Student Counseling

Center. Faculty are NOT confidential under Title IX and will need to share reported information with the Title IX Coordinator. For these and other policies governing campus life, please see the Student Handbook.

- **Electronic Devices:** It is expected that ALL electronic devices be MUTED during class time. Do not answer phone calls or text messages during class.
- **Withdrawal Date:** Withdrawal from a course is allowed until the class reaches the 75% mark of the course length (**11/11/2022 4:30pm**). Withdrawal requires signatures on the Registrar's Course Withdrawal form and the process should be started well before the deadline. Financial implications and satisfactory academic progress implications provided by the financial aid counselor and the academic advisor should be considered during the Course Withdrawal form process.

SELECTED BIBLIOGRAPHY AND WEB RESOURCES

Behe, Michael. Darwin's Black Box. New York: The Free Press, 1996. The author explains the concept of irreducible complexity and provides a number of illustrations of this concept from the inner workings of cellular biology. He also provides support for the Intelligent Design theory.

Denton, Michael. Evolution: A Theory in Crisis. Bethesda, MD: Adler and Adler, 1985. Written by a scientist who is not a Christian, this book surveys the history and development of the theory of evolution with a point by point discussion of some of its inadequacies.

Mader, Sylvia S. Inquiry into Life, 11th ed. New York: McGraw Hill Companies, Inc., 2006 An excellent general biology text that used in many introductory general biology courses.

Rensberger, Boyce. Life Itself: Exploring the Realm of the Living Cell. New York: Oxford University Press, 1996. An excellent description of the complex inner structure and physiology of living cells written for both non-scientists and scientists alike.

Ridley, Matt. Genome: The Autobiography of a Species in 23 Chapters. New York: HarperCollins Publishers Inc., 1999. A national bestseller that deals with a number of pertinent biological and ethical issues related to the mapping of the human genome.

Starr, Cecie and Ralph Taggart. Biology: The Unity and Diversity of Life. Pacific Grove, CA: Brooks Cole Publishers, 2001. Another textbook that is used in many introductory biology courses in colleges around the country.

Wells, Jonathan. Icons of Evolution: Science or Myth? Washington, DC: Regenery Publishing Inc., 2000. The author, who earned a doctoral degree in molecular and cell biology and another in religious studies, challenges the evidence for macroevolution.

WEB SITES

www.mhhe.com/biosci/genbio/mader This is the publisher's web site for additional activities and information on topics covered in the Mader textbook.

www.mhhe.com/maderinquiry10 The online learning center associated with the Mader text.

www.asa3.org The web site of the American Scientific Affiliation, an organization which provides written resources and conferences for scientists of Christian faith. Members of this organization are particularly interested in the relationship between science and religious belief.

<http://www.arn.org> This site provides access to many of the resources which promote the Intelligent Design theory.

<http://discovery.org> This is the site of the Discovery Institute-which houses the Center for Science and Culture. They support research by scientists and other scholars in promoting the Intelligent Design theory.

www.leaderu.com This website houses many articles that address issues relating to Christianity.