

RUTGERS
UNIVERSITY | NEWARK

**Ecology, Evolution and
Natural Resources /
Biology, 21:216:280**

Ecology
Fall 2023 (3 credits)

© Agnès Seugnet 2004

WELCOME ALL!

Lectures: Tuesday: 2:30pm – 3:50pm; & Thursday: 2:30-3:50pm; ACK 106,

Course Material on Canvas

Pre-requisite: Foundations of Ecology & Evolution (BIOL 205/206)

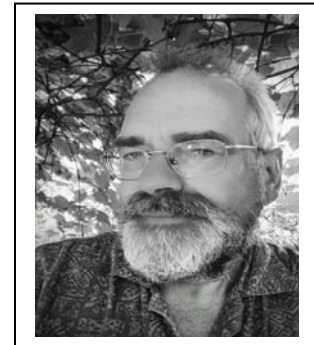
Final exam: Thursday, Dec.19 2021 **details TBA**

Instructor: Dr. Claus Holzapfel

Email: holzapfe@rutgers.edu

Office: Boyden Hall 408

Office Hours: See under 'Appointment policy' on the next page



Course Description: In this course, we will explore the interactions among organisms and between organisms and their environment. This course will help you discover the roles of organisms, populations, communities, and ecosystems in the physical environment and how all work together to make life on this planet possible. You will improve your capacity to think critically about other areas of science including medicine, public health, and conservation by learning to view these issues from an evolutionary and ecological perspective. You will be able become a little bit excited and invested about learning about the world in which you live and understanding how it works through the principles of ecology.

Course-Level Learning Outcomes:

By the end of this course, students will be able to:

1. Identify the major biological and physical principles that rule ecological systems.

2. Understand and be able to explain significant ecological concepts (e.g. population dynamics, climate change, biodiversity, ecosystem services, carrying capacity, nutrient cycling).
3. Make inferences of the impact of humans on the planet.

Course Policies:

Academic Dishonesty Policy: There is ZERO tolerance for academic dishonesty in this course which includes both cheating and any form of plagiarism. The punishment for dishonesty in this course will be a zero on the assignment and a consultation with the Dean's Office after which further action may be required. Please ask if you have any questions on this policy. You should also consult Rutgers University's Academic Integrity Policy: <https://academicintegrity.rutgers.edu/academic-integrity-policy/>

Lecture policy: All lectures will be given live for student review. Lecture material (PowerPoint slides) will be made available, the lecture will be recorded and made available for review only. It is mandatory to attend all classes. Daily surveys and quizzes will be administered through Zoom and you need to sign in each class period.

Participation: Attendance is mandatory. If you must miss a class for a valid reason (reason has to be documented), please discuss making up the missed material with your instructor as soon as possible. Deadlines for assignments will be given at the beginning of the class and are binding, make-up dates will be given only for valid reasons.

Email policy: Other questions can be emailed – I will do my best to answer emails received on weekdays (those sent between 9am Monday and 5pm Friday) within 24 hours. Emails received on the weekend (after 5pm on Friday or before 8am on Monday) will be answered within 24 hours of the following Monday at 9am. General course communication from the instructor will be through Canvas.

Appointment policy: To schedule a meeting, please e-mail holzapfe@rutgers.edu with three proposed meeting times. We can meet in these ways, it's up to you, 1) Zoom, (2) in person in my office (with safe distancing, Boyden 408)

Course materials policy: All course materials (including recordings of lectures) are for students' own use only (no sharing or posting anywhere).

Accommodation and Support Statement

Rutgers University-Newark (RU-N) is committed to the creation of an inclusive and safe learning environment for all students and the University as a whole. RU-N has identified the following resources to further its mission of access and support:

For Individuals Experiencing Disability: The Office of Disability Services (ODS) works with students with medical, physical, and/or mental conditions who encounter disabling barriers to

determine reasonable and appropriate accommodations for access. Students who have completed the process with ODS and have approved accommodations are provided a Letter of Accommodation (LOA) specific to each course. To initiate accommodations for their course students must both provide the LOA and have a conversation with the course instructor about the accommodations. This should occur as early in the semester as possible. More information can be found at the RU-N ODS website (ods.newark.rutgers.edu). Contact ODS at (973) 353-5375 or via email at ods@newark.rutgers.edu.

For Individuals who are Pregnant: The Office of Title IX and ADA Compliance is available to assist with any concerns or potential accommodations related to pregnancy. Students may contact the Office of Title IX and ADA Compliance at (973) 353-5063 or via email at TitleIX@newark.rutgers.edu.

For Short-term Absence Verification: The Office of the Dean of Students can help with absences related to religious observance, emergency or unavoidable conflict (illness, personal or family emergency, etc.). Students should refer to University Policy 10.2.7 for information about expectations and responsibilities. The Office of the Dean of Students can be contacted by calling (973) 353-5063 or emailing deanofstudents@newark.rutgers.edu.

For Individuals with temporary conditions/injuries: The Office of the Dean of Students can assist students who are experiencing a temporary condition or injury (broken or sprained limbs, concussions, recovery from surgery, etc.). Students experiencing a temporary condition or injury should submit a request using the following link:
<https://temporaryconditions.rutgers.edu>.

For Gender or Sex-Based Discrimination or Harassment: The Office of Title IX and ADA Compliance can assist students who are experiencing any form of gender or sex-based discrimination or harassment, including sexual assault, sexual harassment, relationship violence, or stalking. Students can report an incident to the Office of Title IX and ADA Compliance by calling (973)353-1906 or emailing TitleIX@newark.rutgers.edu. Incidents may also be reported by using the following link:
tinyurl.com/RUNReportingForm. For more information, students should refer to the University's Title IX Policy and Grievance Procedures located at <https://uec.rutgers.edu/wp-content/uploads/60-1-33-current-1.pdf>

For support related to Interpersonal Violence: The Office for Violence Prevention and Victim Assistance (VPVA) can provide any student with confidential support. VPVA is a confidential resource and does not have a reporting obligation to Title IX.

Students can contact the office by calling (973) 353-1918 or emailing run.vpva@rutgers.edu. VPVA also maintains a confidential text-based helpline available to students; students can text (973) 339-0734 for support. Students do not need to be a victim/survivor of violence to receive assistance; any student can receive services, information, and support.

For Crisis and Concerns: The Campus Awareness Response and Education (CARE) Team works with students in crisis to develop a plan of support plan and address personal situations that might impact their academic performance. Connect with the CARE Team by using the following link: tinyurl.com/RUNCARE or emailing careteam@rutgers.edu.

For Psychological Support (Stress, Mood, Family Issues, Substance Use concerns and other personal challenges): The Rutgers University-Newark Counseling Center provides individual therapy and support groups for students dealing with psychological issues. To schedule an appointment, email counseling@newark.rutgers.edu or call (973) 353-5805.

Additional support is available to any RU-N student through Uwill services:

- Umatch: Teletherapy with flexible scheduling, starting with a free account.
- Uhelp: Crisis support at 833-646-1526 (available 24/7/365).
- Urise: Wellness-based video collection with a free account.

Access Uwill@RUN at <https://my.rutgers.edu> using your netid. Services are confidential and free. For emergencies, call 911 or Rutgers University Police Department at (973) 353-5111

Required Course Materials:

No textbook is required, and reading will be posted on Canvas. However, if you wish to use a textbook this one would be useful: Ecology: The Economy of Nature. 8th Edition. Robert Ricklefs & Rick Reylea. (you may also use older editions).

Course Website: Canvas login with your NetID.

Modes of Assessment:

Grades	Points
1 st Exam	20
2 nd Exam	20
3 rd Exam	20
Final Exam	25
Participation (quizzes, etc)	15
Total	100

Exams. There will be four exams. **The exams will be open-notes and most likely administered online (Canvas).. More information on this to come.**

Participation: Participation points (one per day) are earned by answering in-class quizzes and by answering the quizzes based the reading assignments.

Make up exams: Make-up exams will be possible with prior approval. If you do miss an exam, make sure to contact the instructor within two days of the missed exam.

Grades and Assessments:

Course Grade: Grades will be determined by performance on exams and class participation (as outlined above). Grades will be determined by the percentage of the possible points earned, following the standard grade scale below. Grades are not curved. Do not ask for extra credit.

Letter Grade	Percentage
A	90 – 100
B+	85 – 89.99
B	80 – 84.99
C+	75 – 79.99
C	70 – 74.99
D	60 – 69.99
F	0 – 59.99

Your scores will be posted to Canvas so you can keep track of your progress in the course. ***It is up to you to calculate your current grade in the course at any given time using the grade breakdown posted above.***

Please let me know ASAP if you require accommodation for a disability or if you have any concerns about the course so that we can work to resolve them. For advice on how to best succeed in this course, feel free to make an appointment to speak with me. **I am here to help!**

Additional Learning Resources:

- Rutgers Learning Center (tutoring services)

Room 140, Bradley Hall

(973) 353-5608

<http://www.ncas.rutgers.edu/rlc>

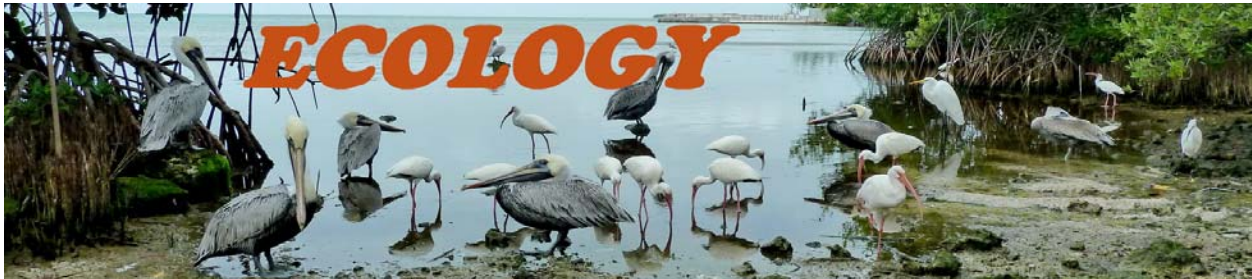
- Writing Center (tutoring and writing workshops)

Room 126, Conklin Hall


(973) 353-5847

nwc@newark.rutgers.edu

<https://www.ncas.rutgers.edu/writingcenter>



Please note: the following is a tentative schedule. Any changes made will be announced & posted to Canvas.

WEEK #	DATE	MEETING TOPIC & LEARNING OUTCOMES*	ASSOCIATED CHAPTERS**
1	T – 9/5	Course & Content Introduction	Syllabus
2	TH- 9-7	Intro to Ecology: What, Where & Why?	Chapter 1
	T - 9/12	Getting to Know Our Planet: Terrestrial Biomes	Chapter 2
3	TH – 9/14	Getting to Know Our Planet: Terrestrial Biomes II	Chapter 3
	T– 9/19	Getting to Know Our Planet: Terrestrial Biomes III	Chapter 4
4	TH – 9/21	Workshop: iNaturalist: Assessing Biodiversity, Bioblitz	
	T – 9/26	Aquatic Biomes (Freshwater)	Chapter 5
5	TH – 9/28	Review	Chapter 6
	T– 10/3	1 st Exam (no class, exam will be taken online)	Material from 9/5 to 9/28
6	TH – 10/5	Marine Systems	
	T –10/10	Adaptations I	Chapter 7 and 8
7	TH –10/12	Adaptations II	
	T –10/17	Organisms: Reproductive Strategies, Sex and Evolution	Chapter 8
8	TH– 10/19	Review	
	T –10/24	2 nd Exam (no class, exam will be taken online)	Material from 10/5 to 10/19
9	TH – 10/26	Populations: Structure	Chapter 9
	T –10/31	“Halloween Special” 	
10	TH – 11/2	Populations: Growth and Dynamics	Chapter 10
	T – 11/7	Species Interaction: Predation and Herbivory	
11	TH– 11/9	Competition	Chapter 11 and 12
	T –11/14	3 rd Exam (no class, exam will be taken online)	Material from 10/26 to 11/09
12	TH– 11/16	Positive Interaction, Coevolution	Chapter 13
	T –11/21	Communities, Ecosystems	
13	TH– 11/23	NO CLASS: Thanksgiving	
	T –11/28	Biodiversity	Chapter 14 and 15

WEEK #	DATE	MEETING TOPIC & LEARNING OUTCOMES*	ASSOCIATED CHAPTERS**
	TH-11/30	Deep History and Biogeography	
14	T – 12/5	Extinction	Chapter 16
	TH – 12/7	Conservation	
15	T– 12/12	Conservation: the future, Climate Change REVIEW	Chapter 17
	T–12/19	Final Exam – online	Final (4 th part and Colinvaux’s book)

** Note: this is a tentative schedule. Any changes made will be announced & posted to Canvas.*

***These are chapters of the book “**Why Big Fierce Animals Are Rare**” written by Paul Colinvaux in 1978, they will be posted on Canvas, the readings may be occasionally supplemented by additional readings, videos or other media posted to Canvas.*

