

# BI 283H Honors Biology III, Spring 2022

## Evolution, Diversity, & Ecology

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### Instructor

Devon Mann  
[mannd@uoregon.edu](mailto:mannd@uoregon.edu)

### Course Time/Location

MWF 10-10:50am  
TYKE 204

### Office Hours/Location

Monday 11-11:50am  
TYKE 204

Students are strongly encouraged to attend office hours and/or make a zoom appointment.

### Lab Instructor

Laurel Pfeifer-Meister  
[lpfeife1@uoregon.edu](mailto:lpfeife1@uoregon.edu)

See lab syllabus for more information

### Course GEs (use them!)

Jordan Brown  
[jbrown32@uoregon.edu](mailto:jbrown32@uoregon.edu)

Kana Suzuki  
[ksuzuki@uoregon.edu](mailto:ksuzuki@uoregon.edu)

### Course Overview

This course is designed to help students understand the genetic basis and ecological context of evolutionary change resulting in major patterns of biodiversity.

In addition, the course focuses on the development of critical thinking as well as logical and effective reading and writing skills and consists of lecture, in-class activities, writing assignments, and discussions.

BI 282H is a prerequisite.

### Required Text

Biological Science, Volume 2 (7<sup>th</sup> edition), *Scott Freeman et al.*, Pearson eText is available for purchase at: <https://www.pearson.com/store/en-us/pearsonplus/p/9780135934302.html>

Your Inner Fish: A Journey into the 3.5-Billion Year History of the Human Body, *Neil Shubin*

Additional reading material may be provided throughout the term

### Assessment

Lab Assignments:	400
Your Inner Fish Questions (YIF): 11@10pts/each	110
Unit Summaries: 4@35pts/each	140
Midterm Phyla Project:	150
Final Exam (In-person; on paper; open book/note):	200
Total Points for the Course (Lecture & Lab):	1000

- Midterm/Assignments/Activities: 40%
- Final Exam: 20%
- Lab Assignments: 40%

## Expectations

I strongly believe that students are responsible for their own learning while treating others with respect and maintaining academic integrity.

To enhance a deeper understanding of content, lecture will be a mix of traditional slide presentations and in-class group activities. Emphasis will be placed on critical thinking skills, science literacy, and clear, logical writing.

## To Succeed in this Course

- Complete all assigned readings as noted in the syllabus **before** attending that day's class.
- Turn in all assignments on-time to prevent falling behind both in lecture and lab.
- Build a study/work group; the course has many in-class group activities that may need to be completed outside of the lecture time. Consider combining your lecture work with your lab group.
- Take detailed notes on all readings; unit summary assignments are graded and can be used as resources during the final exam.
- In short: work together, do all the things and do them on time!

## Course Schedule (Subject to Change Throughout the Term)

Week	Date	Topic	Readings	Assignments
		<b>Unit I: Generation of Biological Variation</b>		
1 M	03/28	Course Introduction		Tonight: Watch 'The Origin of Species: The Making of a Theory'
1 W	03/30	Introduction to Evolution	Intro+ 22.1-22.2; YIF Chap 1	
1 F	04/01	Natural Selection	22.3-22.5	YIF Chap 1 Q Due
2 M	04/04	Evolutionary Processes I	Intro+ 23.1-23.3; YIF Chap 2	
2 W	04/06	Evolutionary Processes II	23.4-23.6	
2 F	04/08	Speciation	Intro+ 24.1-24.4	YIF Chap 2 Q Due

3 M	04/11	Phylogenetics	Intro+ 25.1-25.2; YIF Chap 3	
3 W	04/13	Phylogenetics	25.3-25.4	
3 F	04/15	Phylogenetics		YIF Chap 3 Q Due Unit I Outline Due
		<b>Unit II: Maintenance of Biological Variation</b>		
4 M	04/18	Introduction to Ecology	Intro+ 49.1-49.3; YIF Chap 4	
4 W	04/20	Behavioral Ecology	Intro+ 50.1-50.3	
4 F	04/22	Behavioral Ecology	50.4-50.6	YIF Chap 4 Q Due
5 M	04/25	Populations	Intro+ 51.1-51.2; YIF Chap 5	
5 W	04/27	Populations	Intro+ 51.3-51.4	
5 F	04/29	Populations	51.5	YIF Chap 5 Q Due
6 M	05/02	Communities	Intro+ 52.1-52.2; Chap 6 YIF	
6 W	05/04	Communities	52.3	
6 F	05/06	Communities	52.4	YIF Chap 6 Q Due Unit II Outline Due
		<b>Unit III: Classification of Biological Variation</b>		
7 M	05/09	Classification of Organisms	YIF Chap 7	Mid Term Phyla Projects Due
7 W	05/11	Bacteria/Archaea	Intro+ 26.1-26.3	
7 F	05/13	Protists	Intro+ 27.1-27.3	YIF Chap 7 Q Due
8 M	05/16	Plants	Intro+ 28.1-28.3; YIF Chap 8	
8 W	05/18	Fungi	Intro+ 29.1-29.3	
8 F	05/20	Animals	Intro+ 30.1-30.3	YIF Chap 8 Q Due

8 S	05/21	OIMB Field Trip		<i>Review Midterm Projects Before Field Trip</i>
9 M	05/23	Viruses	Intro+ 33.1-33.3; YIF Chap 9	
		<b>Unit IV: Consequences of Biological Variation</b>		
9 W	05/25	Energy Flow/Nutrient Cycling	Intro+ 53.1-53.2	Unit III Outline Due
9 F	05/27	Global Change: Biology	53.3	YIF Chap 9 Q Due
10 M	05/30	Memorial Day: No School		
10 W	06/01	Biodiversity	Intro+ 54.1-54.2; YIF Chap 10	
10 F	06/03	Ecosystem Function	54.3-54.4	YIF Chap 10 Q Due Unit IV Outline Due
11 M	06/06	Last Day of Spring Term YIF Book Discussion	YIF Chap 11	YIF Chap 11 Q Due
<b>F</b>	<b>06/10</b>	<b>Final Exam 10:15am</b>	<b>In-Person; On Paper; Open Book/Note; 200 pts</b>	

## University Policies

**Students with Disabilities:** *The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center in 360 Oregon Hall at 541-346-1155 or [uoaec@uoregon.edu](mailto:uoaec@uoregon.edu).*

**Academic Misconduct:** *“The University Student Conduct Code (available at [conduct.uoregon.edu](http://conduct.uoregon.edu)) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students’ obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <https://researchguides.uoregon.edu/citing-plagiarism>.”*