

Animal Migration: Journeys by Land, Air, and Sea

ZOO4926 Special Topics

Section 26698

Fall 2022

3 credits

I. Class meeting times and locations

T | Period 4 (10:40 AM – 11:30 AM) Carr 521

R | Period 4-5 (10:40 AM – 12:35 PM) Carr 222

II. Instructor

Dr. Hannah Vander Zanden

Office: Carr 420

Phone: 352-294-0438

Email: hvz@ufl.edu

Office hours: M | 1:30 PM -3:30 PM and by appointment, please let me know if you prefer to come in person or meet via Zoom

III. Annotated syllabus

Welcome to our Annotated Syllabus. This syllabus—like our course—is incomplete without you and your commentary. This Annotated Syllabus is the start of a conversation about our course, your learning, and shared accomplishment. We will annotate our syllabus by: asking clarifying questions; sharing opinions about readings and assignments; noting confusions and uncertainties; responding to policies; providing advice; and reflecting on what works and what can change. Whereas your annotation may be critical, let us strive for commentary that is inquisitive and constructive. Your ongoing thoughts are welcome anytime so that this syllabus documents our learning together this semester.

IV. Course Objectives

This course is intended to expose students to the wonders of animal migration. We will focus on a diversity of organisms that journey by land, air, and sea. By the end of the course, students should be able to:

- Explain migration and methods for studying migration
- Identify proximate factors that affect migration
- Classify migratory life histories and recognize evolutionary factors that may have influenced migratory strategies
- Assess how humans affect migrating animals
- Interpret and evaluate tracking data
- Critically evaluate the scientific literature

Format

- This class will require you to read, evaluate, and discuss. We will only have a productive learning experience if everyone participates.
- We will read and discuss one to two full-length articles per week plus book chapters.

- Most journal article discussions will be led by students and some will be instructor-led
- Some days, we will have in class activities that will require you to bring a personal laptop. I will note that on Canvas and provide reminders for those days that will require the use of a computer.

V. Course Resources

A. Textbooks and other readings

There are two required books, and there will be additional required readings from journal articles that will be posted to Canvas as PDF files. The required books are both available in PDF format from the UF Libraries, so there should be no cost to you, unless you prefer to purchase a hard copy. Note that you may need to use a proxy or VPN to access them from off campus.

Dingle, Hugh. (2014) *Migration: The Biology of Life on the Move*. Oxford University Press. 2nd edition. <https://academic.oup.com/book/5806>

Wilcove, David S. (2011) *No Way Home: The Decline of the World's Great Animal Migrations*. Island Press, Washington, DC.
<https://link.springer.com/content/pdf/10.5822/978-1-59726-377-1.pdf>

B. Course website (Canvas)

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

VI. Schedule of topics

Note, this may be subject to change. Please refer to the schedule on Canvas to see the latest version and link to the readings.

Week	Date	Topic	Modality	Meet a migrator	Discussion leader
1	25 Aug	Welcome			
2	30 Aug	Types of Movement	Air	HVZ	
	1 Sep	What is Migration?	Air		HVZ
3	6 Sep	<i>Empty Skies</i>	Air		HVZ
	8 Sep	Patterns of Migration	Air	1	HVZ
4	13 Sep	<i>A Mountain of Butterflies and Grasshoppers</i>	Air	2	1
	15 Sep	Methods for Studying Migration		3	2
5	20 Sep	Guest lecture: Insect migration	Air		
	22 Sep	Movebank.org activity	Air		
6	27 Sep	<i>Greener Pastures</i>	Land	4	3
	29 Sep	Winds and Currents	Land	5	4
7	4 Oct	<i>Where the Buffalo Roamed</i>	Land	6	5
	6 Oct	Guest lecture: Physiology of migration	Land		6

8	11 Oct	Guest lecture: Wildebeest migration	Land		
	13 Oct	Seasonality	Land	7	7
9	18 Oct	Jigsaw discussion	Land		
	20 Oct	Orientation and Navigation	Land	8	8
10	25 Oct	<i>Lost at Sea</i>	Water	9	9
	27 Oct	Migration to Special Habitats	Water	10	10, 11
11	1 Nov	Guest lecture: Fish migration	Water		
	3 Nov	Behavioral and Life History Variability	Water	11	12
12	8 Nov	<i>Against the Flow</i>	Water	12	13
	10 Nov	Human Interactions	Water	13	14
13	15 Nov	Sea turtle movements	Water	14	
	17 Nov	Ephemeral Conditions	Water	15	15
14	22 Nov	Film activity	All		
	24 Nov	Thanksgiving, no class			
15	29 Nov	Guest lecture: Bat migration	Air		
	1 Dec	Mico activity	Water		
16	6 Dec	Share results and wrap-up	All		

VII. Assignments

A. Participation

Each day, your presence (1 point per day) and your contributions to the discussion (1 points per day) will contribute to your total grade. It is important to join the class and participate in our conversation. The two lowest grades will be dropped.

B. Reading assignments (3 points per article)

Carefully read each assigned paper. Expect to spend at least one hour per paper of careful reading and thinking, but it may often be more than that to get a good grasp of the assignment. You are not expected to understand every detail, but you should aim to grasp the context.

For each assigned paper, you will need to respond to the three prompts in the Canvas assignment:

- 1. Key figure.** Identify which figure is essential to summarizing the results of the paper and why you picked this figure. If there are no figures, instead write about something that surprised you about the reading.
- 2. Understanding.** Are there any details or topics that you would like to learn more about or need help understanding?
- 3. Class discussion.** Describe a topic or question related to the paper that you would like to discuss with the class.

Use your own words to write up the reading homework, you do not need to quote any sources. Feel free to discuss the readings with other students outside of class, but the homework should represent your own thoughts.

On the day that you lead a discussion, the reading assignment will be excused, and your two lowest grades will be dropped.

D. Leading discussions

Each student will lead one discussion during the semester.

E. Other assignments

Activities related to course topics that are not reading assignments will be part of this category. Directions and due dates will be posted on Canvas.

One of these assignments called *Meet a Migrator* will consist of a short presentation (~10 minutes) at the start of the scheduled lecture. This presentation should cover the natural history, migratory patterns, and peer-reviewed research on a migratory species of your choice. Students are also expected to attend and participate (ask questions) during their classmates' presentations.

F. Not-test

As an instructor, I value critical thinking and your ability to relate concepts we cover, and I do not think that memorizing information for a closed-book exam fits with the style of this course. In lieu of a traditional test to assess your understanding of the course material, you will complete a “not-test”. In this free-form assignment, you can select any one (or a combination of) the topics that we have covered. Then, you are free to design and produce any sort of product that explains the topic(s). Examples include designing an infographic, performing a song, drawing a comic, creating a game, writing a short story, interviewing a researcher, writing a grant proposal, creating a series of memes, creating a piece of artwork, writing a poem, or many other possibilities that I have not anticipated. This is a chance to think outside the box and draw on your own talents and interests! We will have a small assignment to propose your plan to receive approval before the final product is due.

VIII. Grading

A. Grade overview

This is an approximate breakdown of how each component of the course will contribute to your overall grade.

30% Participation (attendance and contributions to discussion, drop lowest two scores)

20% Reading homework assignments (drop lowest two scores)

10% Leading discussion

25% Other assignments

15% Non-test

No explanations needed are needed for dropped scores. This arrangement is meant to allow you to take break when you need it or address unexpected life events.

B. Grade scale

A ≥ 92.5%

A- ≥ 89.5%

B+ ≥ 86.5%

B ≥ 82.5%

B- ≥ 79.5%

C+ ≥ 76.5%

C	≥ 72.5%
C-	≥ 69.5%
D+	≥ 66.5%
D	≥ 59.5%
D-	≥ 56.5%
E	< 56.5%

Grades will not be rounded; e.g., 89.50 is an A-, and 89.49 is a B+

C. 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.

IV. UF Policies

A. COVID

In response to COVID-19, the following recommendations are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.

- If you are not vaccinated, get vaccinated. Vaccines are readily available and have been demonstrated to be safe and effective against the COVID-19 virus. Visit one.ufl.edu for screening / testing and vaccination opportunities.
- Since June 15, 2022, UF recommends that members of our campus community and visitors wear masks in public settings and on public transportation, which was based on the CDC recommendations for when community levels are high in our county. (<https://coronavirus.ufl.edu/university-updates/june-15-the-campus-brief.html>)
- If you are sick, stay home. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 to be evaluated.
- As with any excused absence, you will be given a reasonable amount of time to make up missed work.

B. Attendance policy

You are expected to attend class every day. Given the small class size, I will worry if you are not here! In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligation, severe weather conditions, religious holidays, and participation in official university activities. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) will be excused. Please contact me as soon as you realize you may be absent so that we can plan accordingly.

C. Accommodations for students with disabilities

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with me and discuss their access needs as early as possible in the semester.

D. Course evaluations

The evaluation period for this course will be open from November 22-December 9, 2022 and will not be viewable by faculty until after grades are due. 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 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 or in their Canvas course menu under GatorEvals. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

E. Academic honesty

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (sccr.dso.ufl.edu/process/student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor.

F. Campus resources

Asking for help is a sign of strength. Your well-being is important. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. The 24/7 crisis counselor is available at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that. In case of emergency, call 9-1-1.

Other resources available on-campus include:

- *Counseling & Wellness Center* (<http://www.counseling.ufl.edu/cwc/>, 352-392-1575) offers counseling services for depression, anxiety, and other mental health concerns. For Emergency Assistance, please see <https://counseling.ufl.edu/services/crisis/>.
- Many students experience stress and anxiety related to academic performance and college life. In addition to counseling services, the UF Counseling & Wellness Center provides self-help resources that you may find helpful: <https://counseling.ufl.edu/resources/online/>.
- *Student Health Care Center* Call 352-392-1161 for 24/7 information to help you find the care you need or visit <http://shcc.ufl.edu/>.

- *Career Resource Center* (<http://www.crc.ufl.edu/>, Reitz Union, Suit 1300, 352-392-1601) offers career and job search services.
- *The Pantry* is a resource to visit for any student who has food insecurity: <https://pantry.fieldandfork.ufl.edu/>
- Any student 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 for support.
- *GatorWell Health Promotion Services*: For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website or call 352-273-4450.

G. In-class recording

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.