

# ZOO 4405: Sea Turtle Biology and Conservation

## Section 3H04, 15379

### I. General Information

---

#### **Class Meetings**

- Spring 2025
- 100% in person, 20 students
- Tuesdays Period 4 (10:40am-11:30am)  
Thursdays Periods 4-5 (10:40am-12:35pm)  
Carr Hall 222

#### **Instructor**

- Dr. Hannah Vander Zanden (she/her)
- Office location: Carr 420
- Office hours: Tuesdays/Thursdays 9:15-10:15am and by appointment (or message me for a Zoom link)
- Email: Please use Canvas mail, Phone: 352-294-0438

#### **Course Description**

Biology of sea turtles and their roles in marine ecosystems, current major issues in sea turtle biology, and challenges in their conservation and management.

#### **Objectives**

This 3-credit course will focus on the current major issues in sea turtle biology, conservation, and management. We will discuss readings, explore recent research, and identify research needs. Readings for class discussions will be both classic papers and recent literature. Lectures by the instructor or guest speakers will occur weekly, and there will also be time to work on pre-designated group research projects.

## Required Readings and Works

There is one required book. Either version should be sufficient. Copies of the textbook are on course reserve at Marston Science Library, available two hours during the day or overnight.

Witherington, Blair & Dawn. 2015. *Our Sea Turtles: A practical guide for the Atlantic and Gulf, from Canada to Mexico*. Pineapple Press, Sarasota, Florida.

All other readings are available in Canvas.

## II. Graded Work

---

### Description of Graded Work

Please see Canvas for rubrics associated with designated assignments.

Assignment	Description	Requirements	Points
Attendance	Punctual attendance in person is required for this course. I will call role daily after add/drop. Absences will result in a one-point reduction per day.	In person	25
Experiential learning excursion	Attend class outing to the Clearwater Marine Aquarium on Friday, January 31 and complete reflection assignment.	In person	7
Participation	Substantive participation in each of the class discussions during which the student is not a presenter will be ranked as high, low, or none. Two scores will be dropped.	9 of 11 discussion sessions	18
Reading responses	Carefully read each assigned paper. You are not expected to understand every detail, but a brief response to writing prompts will be graded for completeness and will ensure you are prepared to participate in discussion. This assignment will not be required for presenter groups, and that session plus one additional reading response score will be dropped from the gradebook.	10 of 12 discussion sessions	20 (rubric)
Discussion leader	Groups of two students created by the instructor will select a topic with readings designated by the instructor. Groups will create a brief Power Point presentation to introduce the discussion papers, provide basic background, and pose discussion questions to simulate discussion.	5-minute presentation	10 (rubric)
Oral poster progress report	Research groups of 4-5 students will provide a progress report on their research questions, statistical results, graphs and/or tables of results,	5 to 10-minute presentation	10 (rubric)

	and conclusions based on statistical analyses. Each presentation and the following class discussion led by the research group should take about 15 minutes.		
Final poster presentation	Each Research Group will print a hard copy of the final poster and bring it to class for review and discussion.	On paper	20 (rubric)
Peer assessments	Students will submit assessments for the other members of their research and discussion groups. Assessments submitted by students will remain anonymous.	2 assessments	4
<b>Points total*</b>			<b>114</b>

\*This may be subject to change for any changes that occur during the semester.

## Grading Scale

For information on how UF assigns grade points, visit: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

A	> 94%		C	74 – 76.99%
A-	90 – 93.99%		C-	70 – 73.99%
B+	87 – 89.99%		D+	67 – 69.99%
B	84 – 86.99%		D	64 – 66.99%
B-	80 – 83.99%		D-	60 – 63.99%
C+	77 – 79.99%		E	< 60%

The grade percent will be calculated by dividing the total points earned by the total points possible. The above cutoffs are rigid. Grades will not be rounded. More information on grades policies is at: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/#gradingpoliciestext>.

### **Late/Makeup Policy**

Unless stated otherwise, homework assignments are due at the time indicated in Canvas. Homework and most in-class assignments (unless stated otherwise) can be submitted up to 1 week late, with a 10% grade penalty per day (including weekends and holidays). For example, if you submit an assignment 2 days late, and the quality of the work merits a 90% grade, your grade for this assignment would be 70% (20% reduction from 90%). If you miss an assignment due to an acceptable reason (see Attendance policies below), contact your me to schedule a revised deadline or makeup assignment. Whenever possible, let me know ahead of time if you will miss class due to an excused absence, so that a makeup arrangement can be scheduled if possible. Assignments associated with excused absences can be made up without penalty.

### III. Annotated Weekly Schedule

Please note, this schedule is subject to change.

Week	Date	Activity	Homework and Assignments
Week 1	13 Jan	Welcome and course overview	<b>Required Readings:</b> <ul style="list-style-type: none"> <li>The course syllabus</li> </ul>
	16 Jan	Basic Biology I Videos: hatchlings emergence, nesting female loggerhead	<b>Required Readings:</b> <ul style="list-style-type: none"> <li>Witherington pp 1-69</li> </ul> <b>Assignment:</b> Sign up for discussion leader
Week 2	21 Jan	Discussion 1: Importance of Research for Conservation & Management	<b>Required Readings:</b> <ul style="list-style-type: none"> <li>(Mrosovsky, 2006)</li> <li>(Pfaller et al., 2009)</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>Discussion 1 response</li> </ul>
	23 Jan	Introduce Research Projects I & Statistics	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Witherington pp 70-125, 144-153, 168-177</li> </ul>
Week 3	28 Jan	Basic Biology II	
	30 Jan	Discussion of posters <ul style="list-style-type: none"> <li>Mechanics of making a poster at UF</li> <li>What makes a good poster?</li> </ul> Group work time	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Witherington pp 191-217, 237-243, 254-271</li> </ul>
	31 Jan	<b>Field trip to Clearwater Marine Aquarium</b>	All-day required field trip 6am to 6pm. Please contact me if you need permission to miss other class.
Week 4	4 Feb	Discussion 2: Threats: Directed Take by Humans	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Humber et al. 2014</li> </ul>

Week	Date	Activity	Homework and Assignments
			<ul style="list-style-type: none"> <li>Senko and Burgher et al. 2022</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>Discussion response 2</li> </ul>
	6 Feb	Group work time	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Witherington pp. 126-135</li> </ul>
	11 Feb	Discussion 3: Threats: Bycatch	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li><b>Assignment:</b> Discussion response 3</li> </ul>
Week 5	13 Feb	Guest speaker	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Witherington p. 185-187, 230-236, 244-253</li> <li>Foley et al. 2019</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>Statistical test results</li> </ul>
	18 Feb	Discussion 4: Threats: Marine Debris	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Schuyler et al. 2015</li> <li>Nelms et al. 2015</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>Discussion response 4</li> </ul>
Week 6	20 Feb	Discussion 5: Climate Change	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Hawkes et al. 2009</li> <li>Maurer et al. 2021</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>Discussion response 5</li> </ul>
Week 7	25 Feb	Discussion 6: Fibropapillomatosis Disease	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>Sposato et al. 2021</li> <li>Dujon et al. 2021</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>Discussion response 6</li> </ul>

Week	Date	Activity	Homework and Assignments
	27 Feb	Guest speaker	TBD
Week 8	4 Mar	Discussion 7: Ecotourism	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>• Gil et al. 2015</li> <li>• Smith et al. 2021</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>• Discussion response 7</li> </ul>
	6 Mar	Shifting baseline syndrome: Caroline Paxton Barnett and Karen Bjorndal Videos: Historical <i>L. kempii</i> nesting, TED talk	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>• Pauly 1995</li> <li>• Bjorndal 2020</li> </ul>
Week 9	11 Mar	Discussion 8: Population Trends with Historical Data	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>• McClenachan et al. 2012</li> <li>• Early-Capistran et al. 2018</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>• Discussion response 8</li> </ul>
	13 Mar	Research group presentations	<b>Assignment:</b> <ul style="list-style-type: none"> <li>• Research project progress reports due</li> </ul>
Week 10	25 Mar	Guest lecture	
	27 Mar	Group work time	
Week 11	1 Apr	Discussion 9: Assess Conservation Techniques	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>• Frazer 1992</li> <li>• Ferraro and Gjersen 2009</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>• Discussion response 9</li> </ul>
	3 Apr	Draft poster presentations	
Week 12	8 Apr	Discussion 10: Community-based Conservation	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>• Campbell 2007</li> <li>• Nichols 2000</li> </ul>

Week	Date	Activity	Homework and Assignments
			<b>Assignment:</b> <ul style="list-style-type: none"> <li>• Discussion response 10</li> </ul>
	10 Apr	Sea Turtle Necropsy Video by Brian Stacy Isotopic methods to study sea turtles – Vander Zanden	
Week 13	15 Apr	Discussion 11: Importance of Research for Conservation and Management	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>• Bolten et al. 2011</li> <li>• Bjorndal et al. 2011</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>• Discussion response 11</li> </ul>
	17 Apr	Final poster presentations	<b>Assignment:</b> <ul style="list-style-type: none"> <li>• Bring posters to class</li> <li>• Peer assessments of research group members and discussion group members due April 21</li> </ul>
Week 14	22 Apr	Discussion 12: Past, present, and future of sea turtle biology and conservation, Vander Zanden	<b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>• Carr 1967, Chapter 7</li> </ul> <b>Assignment:</b> <ul style="list-style-type: none"> <li>• Discussion response 12</li> </ul>

## IV. Required Policies

---

### Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

### Students Requiring Accommodation

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 their instructor and discuss their access needs, as early as possible in the semester.

### UF Evaluations Process

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 <https://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, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

### University Honesty Policy

University of Florida students are bound by the Honor Pledge. On all work submitted for credit by a student, the following pledge is required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Student Honor Code and Conduct Code (Regulation 4.040, <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code, as well as the process for reported allegations and sanctions that may be implemented. All potential violations of the code will be reported to Student Conduct and Conflict Resolution. If a student is found responsible for an Honor Code violation in this course, the instructor will enter a Grade Adjustment sanction which may be up to or including failure of the course.

### Health and Wellness Resources

**U Matter, We Care:** If you or someone you know is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu), 352-392-1575, or visit U Matter, We Care website (<https://umatter.ufl.edu/>) to refer or report a concern and a team member will reach out to the student in distress.



**Counseling and Wellness Center:** Visit the Counseling and Wellness Center website (<https://counseling.ufl.edu/>) or call 352-392-1575 for information on crisis services as well as non-crisis services.

**Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website (<https://shcc.ufl.edu/>).

University Police Department: Visit UF Police Department website (<https://police.ufl.edu/>) or call 352-392-1111 (or 9-1-1 for emergencies).

**GatorWell Health Promotion Services:** For prevention services focused on optimal wellbeing, including Wellness Coaching for Academic Success, visit the GatorWell website (<https://gatorwell.ufsa.ufl.edu/>) or call 352-273-4450.

**The UF Hitchcock Field & Fork Pantry:** (<https://pantry.fieldandfork.ufl.edu/>) is a free resource for members of the UF community.

**Dean of Students Office:** 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 Office (<https://dso.ufl.edu/>) for support. Furthermore, please notify the professor(s) if you are comfortable doing so that we can provide any resources that we are able to.

## Academic Resources

**E-learning technical support:** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

**Career Connections Center:** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services (<https://career.ufl.edu/>).

**Library Support:** Various ways to receive assistance with respect to using the libraries or finding resources. Call 866-281-6309 or email [ask@ufl.libanswers.com](mailto:ask@ufl.libanswers.com) for more information.

**Teaching Center:** 1317 Turlington Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring (<https://umatter.ufl.edu/office/teaching-center/>).

**Writing Studio:** The Writing Studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at <http://writing.ufl.edu/writing-studio/> or in 2215 Turlington Hall for one-on-one consultations and workshops.

**Academic Complaints:** Office of the Ombuds; Visit the Complaint Portal webpage for more information (<https://www.ombuds.ufl.edu/complaint-portal/>).

**Enrollment Management Complaints** (Registrar, Financial Aid, Admissions): View the Student Complaint Procedure webpage for more information (<https://em.ufl.edu/complaint>).

## **In-Class Recordings**

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.