

 FLORIDA ATLANTIC UNIVERSITY	NEW COURSE PROPOSAL Undergraduate Programs		UUPC Approval <u>10/7/24</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Biological Sciences College CESCOS (To obtain a course number, contact erudolph@fau.edu)		
Prefix Z00 Number 4405	(L = Lab Course; C = Combined Lecture/Lab; add if appropriate) Lab Code	Type of Course <input type="text" value="Lecture"/>	Course Title Sea Turtle Integrated Biology
Credits (See Definition of a Credit Hour) 3	Grading (Select One Option) Regular <input checked="" type="radio"/> Sat/UnSat <input type="radio"/>	Course Description (Syllabus must be attached; see Template and Guidelines) This upper-level lecture and discussion course introduces all sea turtle species, behavioral, ecological, and evolutionary adaptations, and conservation related topics. Major topics include species identification, functional anatomy, reproduction, development, nests and hatchlings, migration, navigation, feeding ecology, physiology, threats to survival, rehabilitation, and conservation strategies. This course will present new material as well as involve materials that students should have learned in earlier courses. After completing the course, students will know the biology of the 7 species, how to integrate information from several disciplines.	
Effective Date (TERM & YEAR) Summer 2025	Prerequisites, with minimum grade* at least 2 semester of General Biology lecture and lab BSC 1010, BSC 1011 BSC 1011L, BSC 1011L, or equivalent) earning passing grade of C or better or permission of instructor		Corequisites N/a
		Registration Controls (Major, College, Level) Biology, CESCOS, undergrad envir. Science Certificate., CESCOS, Undergrad	
*Default minimum passing grade is D-. Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course			
WAC/Gordon Rule Course <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See WAC Guidelines .		Intellectual Foundations Program (General Education) Requirement (Select One Option) None General Education criteria must be indicated in the syllabus and approval attached to the proposal. See Intellectual Foundations Guidelines .	
Minimum qualifications to teach course at least 5 years in the field w/ minimum degree of Ph.D.			
Faculty Contact/Email/Phone Jeanette Wyneken/jwyneken@fau.edu/7-0146		List/Attach comments from departments affected by new course	
Approved by Department Chair <u>Sarah L. Melton</u> College Curriculum Chair <u>Kory D. Sarge</u> College Dean <u>EDW</u> UUPC Chair <u>Korey Sarge</u> Undergraduate Studies Dean <u>Dan Macroff</u> UFS President _____ Provost _____		Date 4-9-24 9/25/24 9/25/24 10/7/24 10/7/24 _____ _____	

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

Sea Turtle Integrated Biology (ZOO 4405) 3 credits

Term – Summer 2, 2025 Daily May 13-June 1, 2025

Monday thru Friday 9am to 6pm

Course prerequisites

Minimum of two semesters of General Biology Lecture and Lab (BSC1-1010, BSC1011, BSC 1010L, BSC1011L, or equivalent) earning passing grades of C or better are required. Additional biology, chemistry and physics coursework with passing grades are highly recommended. Permission of the instructor is required for undergraduates.

Instructor contact information

Instructor's name – Dr. Jeanette Wyneken There is no TA for this course.

Office address – SC266. Telephone number: office (561) 297-0146

Office hours & email – weekdays 8-9 PM US EDT. Online office hours may be adjusted to accommodate special lectures or virtual field trips. If you prefer to meet by video discussion, contact me via Canvas or email (jwyneken@fau.edu); if Zoom meetings are needed, they can be scheduled during office hours via Canvas.

Course Description:

This upper-level lecture and discussion course introduces all sea turtle species, behavioral, ecological, and evolutionary adaptations, and conservation related topics. Major topics include species identification, functional anatomy, reproduction, development, nests and hatchlings, migration, navigation, feeding ecology, physiology, threats to survival, rehabilitation, and conservation strategies. This course will present new material as well as involve materials that students should have learned in earlier courses. After completing the course, students will know the biology of the 7 species, how to integrate information from several disciplines.

Course Logistics, Course Objectives, and Student learning outcomes

This is an **intensive three-week course** consists of online lectures (PowerPoint with audio, videos, and other media as appropriate), assigned readings from the texts and primary literature, discussions of assigned readings, short daily quizzes, and a co-written constructive review and critique of book chapters as the final project. This upper-level lecture and discussion course introduces all sea turtle species, behavioral, ecological, and evolutionary adaptations of sea turtles and conservation related topics. Major topics include species identification, functional anatomy, reproduction, development, nests and hatchlings, migration, navigation, feeding ecology, physiology, threats to survival, rehabilitation, and conservation strategies. This course will present new material as well as involve materials that students should have learned in earlier courses. *After completing the course, students will know the biology of the 7 species, how to integrate information from several disciplines to understand the essential aspects of sea turtle biology, and how that biology may relate to conservation and management.*

Lectures will be recorded, so that students can view them at your own pace, however you must view the lecture material daily to keep up. The lectures may be viewed more than once but cannot be downloaded. Past material will be removed after one week.

Student-led Discussions will be scheduled based upon the time that serves the students most effectively. Discussions are typically aimed to be 1 hour. Students must attend discussions and participate. There will be 3-4 student-lead discussions.

Discussion Format: Discussions be conducted via Zoom instead of face to face. You will access the Discussions by clicking on the Zoom link on your course home page at the designated time. Students will be able to interact with the discussion leaders and instructor live during the lecture using the chat feature. Because we are working across several time zones, the discussion times (designated as Florida EDT time) will be scheduled to best accommodate students in the class. Exact times will be identified early in the first week of class.

Course evaluation method

Lectures: Most lectures will be via PowerPoint presentation with recorded audio. The lectures will overlap with some components of the book to help update content and develop ideas. The lectures are not a substitute for the book, and the book is not a substitute for the lecture.

Discussions: Everyone is expected to read the paper(s) critically that are assigned for class and be prepared to discuss them. You should know the topic and the major significance of assigned readings, be able to explain, express a scientifically based opinion, answer the questions of your peers, and or supply thoughtful criticism of the studies or view-points described in the papers. Discussions are each graded by the discussion leaders and the instructor each on a 10 point system. You must participate! Most participation is a combination of verbal and chat. If it is clear that you have read the paper and are familiar with the details (you can ask questions or clarify points), 1-5 points are awarded. If your discussion indicates you have a clear understanding of the papers, depending upon your level of understanding, you earn another 1-5 points. NOTE: It doesn't matter how hard you worked on the discussion readings; if you don't express yourself, you will not do well. We cannot read your mind. Not showing up, and not participating results in no points.

Students are expected to participate in all discussions. The discussion should start with a summary of the main points of the paper, then the class members will discussing the key points. Each discussion has an end point that should be reach in reach in about an hour.

Quizzes. Short quizzes will be made available for 4 hours at the end of each day on Canvas. Quiz formats may include multiple choice, short answer, and short essay formats. Typically, the quizzes will be open for 20 minutes once the student starts.

Critical Review Paper (final project). Students will be paired based on chapter interests and together will write a 7-8 page (12 pt, double-spaced, 1-inch margins) critical review of a chapter in the *Biology of Sea Turtles Vol. II or II*. The paper will consist of short overview of the chapter (~1/2-2/3 of a page), identification of and discussion of the strengths and weaknesses of the chapter, suggested improvements and updates. Typically, students will identify new literature that should be included, and indicate why that new literature is appropriate. Suggestions for more effective figures are appropriate and welcomed. Literature cited (required) should come from professional (peer-reviewed) journals, refereed technical reports, or other scholarly sources (i.e., *Not* Wikipedia, New York Times, Miami Herald, reddit, Pinterest, TikTok, etc). These gray literature sources might get you started but this is a science class, so

we dig into the scientific literature). Lecture materials can be referenced as pers. comm. but should **not** make up the majority of your references.

Final Chapter Reviews Help. You will find these links on the nature and process of reviewing papers and chapters helpful in preparing you for discussions and for your final project.

<https://students.flinders.edu.au/content/dam/student/slc/critiquing-research-articles.pdf>

<https://www.uis.edu/ctl/wp-content/uploads/sites/76/2013/03/Howtocritiqueajournalarticle.pdf>

<https://authorservices.wiley.com/Reviewers/journal-reviewers/how-to-perform-a-peer-review/step-by-step-guide-to-reviewing-a-manuscript.html>

Grades: Students' grades will be based upon class 14 quizzes, daily participation, discussions of the papers, and the chapter project reports (the written chapter critiques).

Quizzes will be available for 4 hours each day (time to be determined by the class as a whole).

They will not be available after that time designated time. Students not taking the quizzes will not have a make up opportunity unless there is a University-approved absence. The documented absence information is required. Any make up quizzes will be administered orally. Late reports will be penalized 20 pts/day. Points will be awarded based upon the following scale:

Discussion participation (ave 10 pts each)	40
Packback Discussion participation	20
Quizzes (averaging 5 pts each) x 10	50
Chapter critique paper	<u>100</u>
Total points possible	210

Course grading scale

Grading scale

A = 210-193

A- = 192-189

B+ = 188-185

B = 184-172

B- = 171-168

C+ = 167-164

C = 163-151

C- = 150-147

D+ = 146-144

D = 143-130

D- = 129-126

Policy on makeup tests, late work, and incompletes

If a student cannot attend an exam or hand in a homework project on time due to circumstances beyond their control then the instructor may assign appropriate make-up work. *This course is taught in a concentrated, "immersion" format so that the class meets every day for two weeks.* Reasonable accommodation will be made for students participating in a religious observance.

Note that grades of Incomplete (“I”) are reserved for students who are passing a course but have not completed all the required work because of exceptional circumstances. A grade of “I” will be given only under certain conditions and in accordance with the academic policies and regulations put forward in FAU’s University Catalog. The student must show exceptional circumstances why requirements cannot be met. A request for an incomplete grade must be made in writing with supporting documentation, where appropriate.

Special course requirements (if applicable) This course requires fulltime attention for three weeks. Each day of class is equivalent to a week of class during a normal academic semester. Students cannot expect to maintain outside work or dedicate time to another course while taking this course with its immersion format.

Online etiquette policy

Please remember that you are adult students and professionals—your communication should be appropriate. For more in-depth information, please see the [FAU statement on netiquette](http://www.fau.edu/oit/student/netiquette.php#listserv) (<http://www.fau.edu/oit/student/netiquette.php#listserv>)

FAU Attendance Policy Statement: Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The instructor determines the effect of absences upon grades, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student’s responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student’s final course grade as a direct result of such absence.

E-mail communication – If you contact your professor by e-mail, be sure to use proper salutations (Dr. or Prof.) and phrases. “Texting” abbreviations should not be part of your professional e-mails. Be sure to put the subject in the subject line.

Disability Policy Statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU’s campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish

to consider utilizing FAU’s Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Code of Academic Integrity policy statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001. https://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

Honor Code policy statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at http://www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf.

Adherence to the Honor Code for academic honesty is expected of all students. ANY act of dishonesty that violates the honor code and misrepresents your efforts or ability may be grounds for immediate failure of a course, or may result in dismissal from the University. Academic irregularities will not be tolerated.

Required texts/readings/Discussion Forum

The Biology of Sea Turtles Vol. II (2003) & III (2013). (CRC Press, P. A. Lutz et al., eds, Wyneken et al. eds., respectively). Other readings from the primary literature will be provided as links during the class.

Enrollment in PackBack which will be integrated into the Canvas learning platform (for general info see <https://www.packback.co/>).

Supplementary/recommended readings (optional)

Biology of Sea Turtles Vol I. CRC Press, P. A. Lutz et al., eds.,

Biology and Conservation of Sea Turtles, 2nd ed., Smithsonian Institution Press

Course topical outline Tentative Schedule. Order of topics and guest lectures may change.

Topic	Assignment	
Introduction to the Course	Introduce yourself online. First online lectures available Species ID	13 May

Sea Turtle Phylogeny, History and Morphology	Chap. 4 Vol. 3, Chap. 2 Vol. 2 Species ID from bones or parts	15 May
Anatomy & Necropsy virtual lab	Online video	16 May
Discussion 1	5 PM Hendrickson 1980, Van Buskirk & Crowder 1994	16 May
Nests, Nesting, Eggs, Nest Physiology	Lecture and possible virtual field trip (weather-dependent)	17 May
Environmental Sex Determination	Chap 4, Vol. 2,	17 May
Reproductive Cycles General Development	Chap 5, Vol 2 Chapter 3, Vol 2	20 May
Complex Life Histories & Life History Specializations	Chap. 7 Vol. 3 Chap 9 Vol 2	21 May
Migratory Behavior	Chap 5-6, Vol 3; Chap 8 Vol. 2	21 May
<i>Conservation of Group Nesting Sea Turtles (Arribadas) Ridley</i>	<i>Guest Lecture. Dr. Thane Wibbels Time TBD</i>	22 May <i>Day may shift</i>
Discussion 2	5 PM Pike 2013	23 May
Developmental Habitats	Chap 9 Vol. 2	23 May
Feeding Ecology and Behavior/ Sea water & osmoregulation	Chap 10, Vol. 2 Chap 1 & Chap 9, Vol 3	23 May
Discussion 3	5 PM Polivina et al. 2004; Casey et al. 2010	24 May
Gas exchange during swimming and diving	Chapter 10 Vol. 2	24 May
Adaptations for marine life /diving adaptations	Davenport et al. leatherback traits	24 May
Orientation & Navigation	Chap 5 Vol 3	29 May
Discussion 4	5 PM Putman et al. 2019	29 June
Reproduction & Behavior Nest Sites, Site Fidelity	Chap. 3 Vol. 3, Chap. 5 Vol 2	29 June
Urban Beaches: Effects on nesting behavior & hatchling behavior		30 June
Distributions and movements	Chap. 7 & Chap 8, Vol. 3 <i>Guest Lecture. Dr. Vanessa Bezy. Time TBD</i>	30 June <i>Day may shift</i>
Habitat Destruction		31 June
Sea turtle health and disease	Chaps 15 Vol. 2, Chap. 14, 15, & 16 Vol 3	31 June
Sea Turtle Medicine & Rehabilitation		31 June
Incidental Capture	Chap 13 Vol. 2, Chap 12 Vol.3	31 June
Recovery Plans/Legislation Conservation Methods	Chap. 13 Vol. 2	1 June
Sea Turtles as International Organisms	Chap. 12 Vol.2	1 June
Submit Chapter reviews via Canvas	Submit in TurnItIn (11:59PM EDT deadline)	1 June