

Field Wildlife Techniques/ WIS 4945L (1 Credit)

Field Course

Ordway-Swisher Biological Station

Summer A 2022

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| Instructors: | Matthew Hallett (mhallett2320@ufl.edu) and Christina Romagosa (cmromagosa@ufl.edu) |
| Office Hours: | In-person throughout the week-long (6 days) field course. |
| Teaching Assistants: | Daniel Haro, Lameace Hussain, Diego Juarez-Sanchez, Odile Maurelli, and Sylvia Von Boskirk |
| Course Website: | UF Canvas |
| Lecture: | This course is field based and held at the Ordway-Swisher Biological Station https://ordway-swisher.ufl.edu/ |
| Sections: | May 2-7, 2022 (17107), May 9-14, 2022 (17108) |

Communication with instructors: When you have questions, need further instruction, or have a problem I encourage you to contact one of your instructors via email (provided above). The nature of this course means students are unlikely to be in Gainesville for in-person office hours, but the internet provides us an excellent medium for communication. Please reach out.

Course Description: In this course, students will examine and apply the wildlife techniques used by managers and researchers when working with wildlife. Students will use the knowledge they gained in the lecture course and apply them during the week-long (6 days) field course. The major topics covered in the course include: animal capture and handling, sexing and aging wildlife, radio telemetry, population estimation methods, passive monitoring techniques, quantifying vegetation, and habitat usage.

Course Goal: The goal of this class is to provide students with a strong practical background in wildlife management and research techniques that prepare them to become wildlife professionals. It will build on the Wildlife Techniques lecture course by providing real-life, field-based examples of the common techniques used by wildlife professionals.

Course Objectives:

Specific objectives are for students to be able to:

- 1) Operate maps, compasses, pacing, and GPS for orienteering and navigation
- 2) Employ passive monitoring techniques in wildlife ecology
- 3) Design capture, handling, and marking protocols for birds, mammals, fish, and herpetofauna
- 4) Apply theory and methodologies for wildlife radio-telemetry
- 5) Measure metrics of vegetation and habitat used by wildlife

Prerequisites: Wildlife of Florida (WIS 3402), Wildlife Techniques (WIS 4945)

Recommended Textbook: Silvy, N. J., editor. 2020. The Wildlife Techniques Manual. 8th edition. The Johns Hopkins Press, Baltimore, Maryland. USA. ISBN # 13: 978-1421436692. This book (a 2 volume set, we'll be using Volume 1 – Research) can be obtained through any major online bookseller (Amazon.com, etc.).

Course Materials: The course syllabus and materials will be available on the Canvas course website. Written materials require Adobe Acrobat Reader (free at <http://www.adobe.com/products/acrobat/readstep2.html>) and MS Word to access and print.

Course Format: This course is a week-long field course held at the Ordway-Swisher Biological Station. Activities in this course include mostly outdoor activities. Therefore, students should plan accordingly and wear proper field clothes (i.e., no shorts, flip-flops/sandals, etc.). You should also be prepared to go in the field in inclement weather including, but not limited to, excessive heat or cold, rain, or wind. Mosquitoes!! The schedule on the last two pages should be considered as tentative. In past years, hurricanes, govt shutdowns, and various other occurrences have required us reschedule activities in our field courses. Be prepared but understand that sometimes... things change.

The course begins officially on Monday morning **at 6 AM** and ends the following Saturday, mid-day. We will be staying at the Ordway for the entire week. A faculty member or TA(s) will be arriving the preceding Sunday afternoon (at 2pm), and we strongly encourage students to also arrive to the site on Sunday to orient themselves and set up camp. Housing and camping facilities are provided. Cooking facilities, refrigeration, bathrooms and showers are available. Students will need to self-transport or be transported to Ordway on the first day, but they are required to stay at Ordway during the entire week. The Department can provide initial and final transfers via teaching vans, if needed. Students will not be permitted to leave at any point during the course due to the ongoing pandemic and general safety, unless in case of emergency.

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| Grading: | iNaturalist Entries | 100 pts |
| | Field Notebook | 200 pts |
| | <u>Participation</u> | <u>100 pts</u> |
| | Total | 400 pts |

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

- A : 370-400 points
- A-: 360-369 points
- B+: 350-359 points
- B : 330-349 points
- B-: 320-329 points
- C+: 310-319 points
- C : 290-309 points
- C-: 280-289 points
- D+: 270-279 points
- D : 250-269 points
- D-: 240-249 points
- E : <240 points

Grading Policy: If there is a summation error for points, please contact the instructors immediately. If you believe that an exam, field notebook, or other component in the course was improperly graded, please bring it to the instructors for reevaluation within 1 week of the time that the grade was returned or posted. In such cases, the entire grade-earning component will be reevaluated, and a new grade assigned. Please regularly check the grades on the course website, and notify us immediately if a grade is incorrectly recorded. Information on the UF grading policy for assigning grade points can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>. Requirements for class attendance & participation are described below with each section, and are consistent with university policies at <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

iNaturalist Entries: We have created an iNaturalist project that will run in conjunction with the Wildlife Techniques field course. Students are required to make 50 separate uploads of 50 different species (2 points per complete submission) to iNaturalist throughout the week. Uploads must contribute to the iNaturalist database, meaning they must be geotagged, open to the public, and of organisms (no pictures of sand, people, etc). The longleaf pine system is one of the most speciose in all of North America, getting 50 species won't be an issue. Please remember that documenting rare or invasive species is exceptionally useful to researchers. We will provide a link to join the project.

Field Notebook: During the week in the field you will be required to keep a field notebook. When you get ready to go out in the morning, the first thing you should grab is your notebook. For this 200-point assignment, you will be graded in 3 categories: Format (60 points), Content/Completeness (90 points), and Overall (50 points). A detailed sample grading sheet for the notebook will be provided. Always feel free to ask us about your notebook as the class progresses.

Using a field notebook. You are required to keep a field notebook during this course. These notebooks are primarily for biologists to collect data and take good notes while in the field. Being a wildlife professional also means that you are a naturalist who makes observations about the natural environment and the interaction among animals, plants and the land. It is through these types of observations that you will develop an understanding of the natural world. These observations can also help us ask questions that lead to scientific research. From Darwin to Leopold to now, the best method for recording data, observations, thoughts, and activities in the field has been the field notebook. By keeping a field notebook you will be able to develop your observation and interpretive skills and keep a permanent record of your activities. There are several standardized methods for keeping a field notebook, so that after you have become famous, other biologists can go back to your notes, go to the exact sites you visited, and hopefully see similar animals and behaviors. At first it may seem nitpicky, but there is a reason for the standardization. Attention to detail is never a bad thing. The rules outlined below loosely follow the Grinnell method (do you know who Joseph Grinnell is? If not, look him up!).

The notebook itself. You will be receiving a notebook with waterproof paper (“Rite in the Rain”). You will need to bring your notebooks with you to lab sessions, so there is a good chance that they will get wet. In fact, bring them any time you go outside! The more use it gets, the better for you. The true performer on these notebooks is a pencil, but if you are a pen person, ball points will work as well.

Content. Your field notebook will consist of accurate accounts of your field activities. The information in this notebook should be entered in the field; accuracy is the priority, not neatness (though you do want to be able to read your notes!). Throughout the course, you will be using your field notebook. You will have 2 equally important types of entries into your notebook. The first type of entry will detail your experiences during organized lab exercises. The second type of entry will detail all of the observations, interpretations and reflections that you have during lab or outside of class. These observations could include anything from the birds you saw while you were eating breakfast, animals you noted while walking to class, to the tracks that you saw in the sand while setting traps.

Format. In the upper left-hand corner of every page, left of the margin, write your name and the year below your name. For every entry there is essential basic information that you should **include: date, time of day, location, weather, temperature, wind** or any other factors that you think will influence the presence or behavior of wildlife. Enter the locality in detail (you should be able to give your notebook to someone and they should be able to get to the exact site). Use a GPS when you can. Additionally, provide a brief description of where you are. It is also OK if you want to make a map you can also give detailed directions to the site. Give information that could help you find this property, such as the full name of the person who took you there (your instructor) and the name of the property owner. Follow with your observations.

Separate each locality or day with a squiggly line drawn across the page. Do not start each observation on a new page, the goal is to not waste space.

Observations Your observations should be as detailed as possible. A good way to tell if you wrote enough detail is to ask yourself, “If I come back to this place 10 years later and see different things, do I have enough detail to make a guess as to why I am seeing different species?” give a brief description of what you are doing (walking, seining for fish, small mammal trapping, etc.). For example, when you seine, you need to record which fish were caught where, in what habitat, by what methods, using what kind of nets. You should make every attempt to identify all animals encountered. If you do not know what it is initially, write a detailed description and leave a space for the scientific name so that you can identify it from a field guide later. Some of the best field note takers draw (stick figures are acceptable!) or use tables and diagrams. You should describe in detail what the animal is doing. Do not use generalities like “we saw lots of cottonmouths”. Always use numbers even if you have to use gross approximations like “10 to 20 cottonmouths”. You should also include a brief description of the vegetative communities where your observations occurred. The weather and time of day are crucial, make sure you have them on all observations.

Lab exercises. After you have entered the essentials, use your notebook to record the activities and data

collected during the lab exercise. Some things you might record include: species, weight, tag number, location and type of trap and any relevant comments. After the exercise is over, take time to summarize your results and make any observations or interpretations.

Informal observations. This allows you more freedom to record your personal observations of animal signs, sightings, interactions, and behaviors. The content of this section should be detailed enough for future use and interpretation. You are encouraged to include sketches. If you take pictures be sure to enter that information in your notebook. Finally, don't be afraid to interpret what you see and to propose hypotheses and explanations.

Participation and attendance: Attendance and participation in discussions and field exercises are imperative for successful completion of the course. Therefore, participation and attendance are a vital part of your grade (100 points). Participation points are given for physically engaging in all activities (e.g., set up, checking, break down, cleaning, and storage of all equipment) during the course (50 pts). We will also give participation points based on contribution to discussion sessions about sampling design and data collection (25 pts). We will record timeliness of attendance and attitude during field sessions (25 pts). Field activities during the course are non-optional, so sitting any activity out (excluding for health reasons) will count against student participation/attendance.

Behavior in class: This course is an intensive field course. A good attitude is required. Students are required to be professional in all facets of this course. Disruptive or rude behavior will not be tolerated. Instructors and TAs reserve the right to remove anyone from the course if they do not conduct themselves in a professional manner. If you are removed from an activity you will not receive any credit associated with it. We consider texting, talking while others are speaking, surfing the web on handheld devices, mocking other students, and inappropriate comments all grounds for dismissal from class.

Software Use: All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Technology issues: It is your responsibility to have the latest software on your computer and to troubleshoot any problems you have accessing and using the course website. If you are having any technology-related issues, contact UF tech support at 352-392-4357. You can bring your laptop to discussion, but it is not acceptable to be disrespectful to your instructors or your classmates. Don't send text messages, use your phone, or use your computer for things unrelated to class. If you use an electronic device without permission, you will be asked to leave the classroom.

Plagiarism: As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writing etc., which belong to another. As per UF Honor Code (see Academic Honesty below): A student shall not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to: 1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution. 2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student. Canvas has some handy applications for faculty to determine whether plagiarism has occurred. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. Plagiarism will not be tolerated in this course. Offenders of this policy will be punished according to University policies.

Academic Honesty: You are expected to become familiar with and follow current University Policy (see <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>). In addition, there will be no cheating of any type tolerated in this course. 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 Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

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.

Course evaluation: 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/>.

Campus Helping Resources: Students experiencing crises or personal problems that interfere with their general well-being are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance. The links provided below can help with a variety of topics.

Health and Wellness:

- U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website 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 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.
- University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.
- 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.

Academic Resources

- E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.
- Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

- Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring. Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.
- Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.
- On-Line Students Complaints: View the Distance Learning Student Complaint Process

COVID Resources:

- If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)), please [click here for UF Health guidance on what to do if you have been exposed to or are experiencing Covid-19 symptoms](#).
 - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies.](#)
<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Services for Students with Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Sexual Harassment: It is the policy of The University of Florida to provide an educational and working environment for its students, faculty, and staff that is free from sex discrimination and sexual harassment. In accordance with federal and state law, the University prohibits discrimination on the basis of sex, including sexual harassment. Sex discrimination and sexual harassment will not be tolerated, and individuals who engage in such conduct will be subject to disciplinary action. The University encourages students, faculty, staff, and visitors to promptly report sex discrimination and sexual harassment. Any employee, co-worker, or student who has knowledge of sexual harassment is strongly encouraged to report it promptly: <https://hr.ufl.edu/forms-policies/policies-managers/sexual-harassment/>