

# Foundations of Natural Resources and Conservation

## FNR 3002C – 1 credit

**Instructor:** Dr. Debbie L. Miller  
Email: dlmi@ufl.edu  
Office: Rm 4906, Building 4900

**Office Hours:** Monday 2:00-4:00 CST; Also available by appointment; If my door is open, you are welcome to drop by.

**Teaching Assistant:** Emile Sow  
Email: emile.sow@ufl.edu  
Office: Rm 4803, Building 4800  
Telephone: 850-983-7141; Cellphone 352-214-4205

Preferred method of communication via Email through Canvas;  
However, office phone and cell phone when immediate information is needed i.e. fieldtrips etc.

**Course location/time:** Room 4822  
Monday 5:00-6:00 pm

**Field Trip location:** TBA

**Course Prerequisites:** 3FY or instructor permission

**Textbook:** There is no required text for the course.

### Course description

The purpose of this course is to introduce students to the concepts and skills needed to enter the profession of natural resource conservation. We will first discuss the philosophical and historical contexts for the development of natural resource agencies and professional fields, and then we will delve into current issues that many students will face as they begin their careers. This course will introduce students to field sampling, including field equipment commonly used in forestry, natural resources, and environmental sciences. You will also learn about the variety of opportunities that exist in the Natural Resources field by interacting with professionals in the field, who will serve as guest lecturers.

## Learning Outcomes

By the end of this course, each student will be able to apply foundational concepts in natural resources and conservation to subsequent courses in their curriculum, and to their professional careers.

## Course Evaluation and Performance

Term Project	30%
Natural Resource Professionals – Questions 1% x4 Summaries 4% x4	20%
Canvas Quizzes	20%
Discussion Questions/Answers/Readings and Video Summaries/Exercises	20%
Class Participation	10%

- Late work will be penalized 5% per day
- Make-up tests, optional assignments for classes, will only be given if the student has been excused prior to the scheduled date, and make-ups should be completed within seven days of the original test or assignment.

Letter grades will be assigned as follows:

<b>Letter Grade</b>	<b>Numeric Value</b>
A	93.00-100.00
A-	90.00-92.99
B+	86.00-89.99
B	83.00-85.99
B-	80.00-82.99
C+	76.00-79.99
C	73.00-75.99
C-	70.00-72.99
D+	66.00-69.99
D	63.00-65.99
D-	60.00-62.99
E	<59.99

## Term Project (30%)

A final course project will allow you to explore, demonstrate, and/or apply concepts learned during class. You may choose one of several formats for your final project:

### 1. Natural resource site (park, forest, etc.) video or brochure

You're in this major to get into nature, right? This project will allow you to do that, for credit! Prepare a 5-7 minute video or a two-page (letter paper size) brochure that describes important elements of a natural resource site that you visit. The video or brochure must include:

- a. Name and location of the site
- b. Name of agency or entity that manages the site
- c. Objective or mission of the agency
- d. Description of how the site and the natural resource management activities there are helping the agency or entity fulfill its mission
- e. Photos, videos, maps, and other visual information that illustrate your points, with most photos taken by you during your visit to the site
- f. Limited use of photos or maps from agency materials may be used, but they should be minimal and their source must be cited
- g. At least one photo or video shot must include your face to show that you visited the site

### 2. Natural resources art project

If you are feeling creative, this may be the project for you. Create an original piece of art that reflects some aspect of natural resource management. This could be a painting, sculpture, woodwork, cartoon, drawing, illustrated map, fiber art, or any other medium which you choose, EXCEPT, for the purposes of this project, photography is excluded. You can illustrate an event in natural resource management history, the work of a particular person, a meaningful natural resource location, etc. Here are the requirements:

- a. The art must illustrate some concept that we covered in class this semester
- b. You must include a PowerPoint slide file that includes:
  - i. Bullet points or short paragraph describing your art and explaining its connection to a concept that we discussed in class
  - ii. Photos of you with your piece of art during at least three phases of its creation so that I can be sure you created the art
  - iii. A photo of the final piece

### 3. Natural resources road trip

Feel like hitting the road? Then start your engines and do this project. Plan a road trip in the continental United States that visits natural resource sites managed by at least three different types of entities: local, state, and federal. The road trip should have a theme that you state up front. The theme is completely up to you, but could be something like, "big trees" or "endangered species" or "indigenous history" or "scenic trails" or "wild rivers" or anything else you can think of that makes sense given your planned stops. Your project should be in the form of a PowerPoint file which includes:

- c. A neat and professionally done map which shows the route and sites for your road trip. The total travel mileage should be 2,500 miles or less. Your trip must start and end at the same location, but you can make that starting location any city that you choose, as long as it has a population over 100,000 (meaning it would probably have an airport).
- d. An agenda slide(s) for each day of the trip which includes travel details (e.g. driving from point A to point B), locations to visit, and identification of one or two features that you will visit at the location and how those features meet the theme that you chose.
- e. A summary slide for each site visited which includes
  - i. Name and location of the site
  - ii. Name of agency or entity that manages the site
  - iii. Objective or mission of the agency
  - iv. Description of how the site and the natural resource management activities there are helping the agency or entity fulfill its mission
- f. Any photos, videos, maps, and other visual information that illustrate your points from agency materials may be used, but their source must be cited

## **Natural Resource Professional Engagement (20%)**

We will have natural resource professionals from different agencies and the private sector visit our class to talk about their position and answer student questions. Each student will be expected to write 2 meaningful questions that they would like to ask each natural resource professional and post them on Canvas before the start of class. Students should try to ask at least one of these questions during the class period (1%). Following class, students will write a 1 paragraph summary of the presentation and their engagement with the natural resource professional. This should include what the person does and what organization they work for, along with what the student learned from the presentation (4%).

## **Canvas Q&A and Video and Reading Activity (20%)**

At the end of each class, students will post at least 1 question to Canvas about that week's course content (in-person lecture/activity, recorded video lectures). Questions can be about something specific that the student didn't understand, or they can be broader questions expanding from the material. In addition, students should answer at least 2 questions posted by the other students. Answers to questions must but be meaningful (i.e. not just "I agree/disagree"). Post early and often for full credit.

Reading/Video activity – For each reading and video assignment, 5 main points (complete sentences) presented in the readings and video should be posted. Questions and comments can come from these as well. Some weeks exercises will replace questions.

## **Quizzes (20%)**

Students will be assigned an online midterm (10%) and final (10%) quiz on everything in the class that has been covered up to that point. Quizzes will be available from Monday-Friday and can be completed independently or with other students.

## **Class Participation (10%)**

Attendance and participation in in-person classes and lab and class activities are required. Useful participation requires asking thoughtful questions, responding to instructor questions, bringing new perspectives, and participating in-class activities.

## **Grades and grade points:**

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

## **Reading List**

There are no required textbooks for this class. Readings will be provided on Canvas as part of class assignments.

## **Course Logistics**

Students may access lectures, assignments, readings, and supporting materials through the course Canvas site as they become available.

## **Technology Requirements**

- A computer or mobile device with high-speed internet connection.
- A webcam, headset and/or microphone, and speakers.
- Latest version of web browser. Canvas supports only the two most recent versions of any given browser. [What browser am I using?](#)
- Installation of proctoring software may be required and will be provided if so.

## **Attendance, Late Submissions & Make-up Requests**

- Attendance/Participation in in-person classes and off-campus field labs are required. Useful participation requires asking thoughtful questions, responding to instructor's questions, and bringing in new perspectives.
- Make-up work will only be allowed with an acceptable absence is reported. Please inform me immediately if you are unable to attend with a university approved absence. All make-up assignments must be completed one week following missed class unless approved by instructor.

- It is the responsibility of the student to access on-line lectures, readings, quizzes, and exams and to maintain satisfactory progress in the course. Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:  
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>
- Assignments and quizzes are turned in electronically via Canvas. Refer to the syllabus schedule or Canvas assignments tab for due dates and times. Without an excused absence, students will not have the option to complete a quiz after the established close date/time. Late assignments will lose value at the rate of 5% each subsequent late day (weekend days count too!).
- Computer or other hardware failures, except failure of the UF e-Learning system, will not excuse students for missing assignments. Any late submissions due to technical issues **MUST** be accompanied by the ticket number received from the Helpdesk when the problem was reported to them. The ticket number will document the time and date of the problem. You **MUST** e-mail your instructor within 24 hours of the technical difficulty if you wish to request consideration.
  - For computer, software compatibility, or access problems call the HELP DESK phone number—352-392- HELP = 352- 392-4357 (option 2).

## **Communication Courtesy and Professionalism**

Just as in any professional environment, meaningful and constructive dialogue is expected in this class and requires a degree of mutual respect, willingness to listen, and tolerance of opposing points of view. **Respect for individual differences and alternative viewpoints will be maintained in this class at all times.** All members of the class are expected to follow rules of common courtesy, decency, and civility in all interactions. Failure to do so will not be tolerated and may result in loss of participation points and/or referral to the Dean of Students' Office.

## Course Schedule

This syllabus represents current plans and objectives for this course. As the semester progresses, changes may need to be made to accommodate timing, logistics, or to enhance learning. Such changes, communicated clearly, are not unusual and should be expected.

Week, Class Date	Topic	In-person class?	Reading or Video Assignments	Due by 4 pm the following Monday unless otherwise specified
Week 1, Aug 25	Review syllabus, intro to projects; Aquatic lab discussion	Yes	Thoreau, "Spring"	<ul style="list-style-type: none"> <li>- Summary of 5 major points from the reading</li> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> </ul>
Week 2, Sept 1	What is NRC? continued	No (Labor Day)	<ul style="list-style-type: none"> <li>- Pinchot, <i>The fight for Conservation</i>, Ch. IV &amp; VII</li> <li>- Muir, <i>Steep Trails</i>, Ch XIV</li> </ul>	<ul style="list-style-type: none"> <li>- Summary of 5 major points from the readings</li> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> </ul>
Week 3, Sept 8	Aquatic Lab (Saturday Sept. 13)	Attend Sat. lab (no class Mon.)	None	<ul style="list-style-type: none"> <li>- Submit data <b>before the end of lab Sept. 13th</b></li> </ul>
Week 4, Sept 15	Conflicting interests and public lands	No	<ul style="list-style-type: none"> <li>- Leopold, "The Land Ethic" &amp; "Conservation Esthetic"</li> <li>- 1<sup>st</sup> hour of "Greatest Good" video</li> <li>- Forest Mgt., Part 1 recorded lecture</li> </ul>	<ul style="list-style-type: none"> <li>- Summary of 5 major pts from the readings &amp; videos</li> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> </ul>
Week 5, Sept 21	Fundamentals of NRC	Yes	<ul style="list-style-type: none"> <li>- Leopold, "Wildlife in American Culture"</li> <li>- 2<sup>nd</sup> hour of "Greatest Good" video</li> <li>- Forest Mgt., Part 2 recorded lecture</li> <li>- "North American Populations" video</li> <li>- Field safety videos</li> </ul>	<ul style="list-style-type: none"> <li>- Summary of 5 major pts from the readings &amp; videos</li> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> </ul>
Week 6, Sept 29	Adaptive management & contemporary NR issues	No	<ul style="list-style-type: none"> <li>- Watch recorded lecture</li> <li>- "SE pine forests and red-cockaded woodpeckers"</li> </ul>	<ul style="list-style-type: none"> <li>- Provide 5 main points from the reading</li> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> </ul>

Week 7, Oct 6	Vegetation sampling	Yes	None	<ul style="list-style-type: none"> <li>- Term project idea presentation next week</li> <li>- Submit NR professional questions (due Fri.)</li> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> </ul>
Week 8, Oct 13	Propose your term project idea  Meet a natural resource professional	Yes	<b>Midterm quiz online</b>	<ul style="list-style-type: none"> <li>- <b>Midterm quiz (due Mon. Oct. 20 at 4 pm)</b></li> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> <li>- NR professional summary</li> </ul>
Week 9, Oct 20	Wildlife trapping/ natural resource professional	Yes	None	<ul style="list-style-type: none"> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> <li>- Group assignment: trap summaries</li> </ul>
Week 10, Oct 28	Excel exercise	Yes	None	<ul style="list-style-type: none"> <li>- Complete and submit Excel exercise</li> </ul>
Week 11, Nov 3	How to write a scientific paper  Literature searches	Yes	<ul style="list-style-type: none"> <li>- “How to search the scientific literature”</li> <li>- Lecture: “Reading and writing a scientific paper”</li> <li>- Sample paper in Canvas</li> </ul>	<ul style="list-style-type: none"> <li>- Participate in online Q&amp;A discussion (Tue.–Mon.)</li> <li>- Submit NR professional questions (due Fri.)</li> </ul>
Week 12, Nov 10	Meet a natural resource professional	Yes	None	<ul style="list-style-type: none"> <li>- NR professional summary</li> <li>- Submit NR professional questions (due Fri.)</li> </ul>
Week 13, Nov 17	Meet a natural resource professional	Yes	None	<ul style="list-style-type: none"> <li>- NR professional summary (due <b>Friday</b> because of Thanksgiving)</li> </ul>
Week 14, Nov 24	THANKSGIVING BREAK	No	None	<ul style="list-style-type: none"> <li>- Submit NR professional questions (due Fri.)</li> <li>- Term project due next week</li> </ul>
Week 15, Dec 1	Meet a natural resource professional	Yes	<b>Term project due</b>	<ul style="list-style-type: none"> <li>- NR professional summary (due Wed Dec. 3)</li> <li>- <b>Term project due [Wed. Dec. 3]</b></li> </ul>
Week 16 Dec 8	Final quiz	No	<b>Final quiz online</b>	<b>Final quiz due Wed. Dec 10 at 4 pm</b>

## Semester Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning.

**At approximately the mid-point of the semester**, the School of Forest, Fisheries, & Geomatics Sciences will request anonymous feedback on student satisfaction on various aspects of this course. These surveys will be sent out through Canvas and are not required but encouraged. This is not the UF Faculty Evaluation!

**At the end of the semester**, 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/>.

## UF Honor Code and 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 Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class.

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <https://policy.ufl.edu/regulation/4-040/>

## Plagiarism Policy

Do not submit work previously submitted to another class to fulfill the requirements of this class. All work submitted through Canvas will be evaluated by the software **Turnitin**. **Turnitin** compares student submission to billions of websites and other papers submitted and highlights exact matches. Instructors will verify if students obtained their information from appropriate sources and properly cited those sources.

UF Plagiarism Policy: <http://regulations.ufl.edu/chapter4/4041.pdf>

Plagiarism Definition: 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:

- Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution
- Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authorized by the student
- Unauthorized use of materials or resources
- Prohibited collaboration or consultation
- Submission of paper or academic work purchased or obtained for an outside source

## **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 education 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 deliver by an 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 presentation such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private 3 Revised: September 2024 conversations between students in the class or between a student and the faculty or guest 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.

## **Services for Students with Disabilities:**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then

provide this documentation to the Instructor when requesting accommodation. 0001 Reid Hall, 352-392-8565, <http://www.disability.ufl.edu>

## 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.

## Campus Helping Resources

For issues with technical difficulties for e-learning in Canvas, please post your question to the Technical Help Discussion in your course, or contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu) | (352) 392-HELP - select option 2 | <http://elearning.ufl.edu>
- Library Help Desk support <http://cms.uflib.ufl.edu/ask>
- SFFGS Academic Hub <https://ufl.instructure.com/courses/303721>

## Student Life, Wellness, and Counseling Help

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.

- UF CALS offers direct mental health counseling FREE OF CHARGE for students at distance locations (REC's) through an embedded counselor – Dr. Philip Daniels. He has a welcome video which can be viewed here: [Dr. Daniels Welcome Video](#). If you are a student at a UF/IFAS Research and Education Center, you will be directed to Dr. Daniels for consultation and referral services. *Email communication has limited confidentiality and is reserved for scheduling, [pdaniels@ufl.edu](mailto:pdaniels@ufl.edu)* If you are in need of an appointment, please email or call Dr. Daniels directly (352) 392-1575.
- Counseling and Wellness resources <http://www.counseling.ufl.edu/cwc/>
- U Matter, We Care <http://www.umatter.ufl.edu/>
- Career Connections Center <http://career.ufl.edu/>
- Student Success Initiative <http://studentsuccess.ufl.edu>
- Other resources are available at <http://www.distance.ufl.edu/getting-help> for online students.

## Student Complaint Process

The School of Forest, Fisheries, & Geomatics Sciences cares about your experience and we will make every effort to address course concerns. We request that our online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered. You can also [submit feedback anytime](#).

If you have a more urgent concern, your first point of contact should be the Academic Coordinator or the Graduate/Undergraduate Coordinator for the program offering the course.

Residential Course: <https://www.ombuds.ufl.edu/complaint-portal/>