


PLS 5625

Upland Invasive Plant Management

Spring 2026 (online, asynchronous) 3 credits

Course Schedule Hours and Location

This is an online course, but NOT a go-at-your-own-pace course. Students are expected to watch the lectures and complete the accompanying assignments (quizzes, discussion posts, etc.) during their assigned week. Course material and communication will be provided through the Canvas site.

Instructor

Dr. Greg MacDonald
Office: 2059 McCarty Hall D – McCarty Drive
Office Phone: 352-294-1594; Cell: 352-262-8393
Email: pineacre@ufl.edu
Office Hours: By appointment, message through canvas or email

Teaching Assistant

There will not be a teaching assistant associated with this course this semester

Course Description

Invasive plants are major disruptors of ecosystems and management is critical; emphasis is placed on biology, spread and impacts of invasive plants and their management using integrated approaches, including effective communication with the public and stakeholders.

Course Learning Objectives

After completion of this course, you will be able to:

1) Explain what differentiates an invasive plant from other species
2) Assess the environmental impacts of invasive plants in natural areas
3) Identify common invasive species and common native congeners in natural areas
4) Develop an appropriate management plan for invasive plants in natural areas
5) Effectively communicate about invasive species issues with a non-scientific audience

Course Overview and Purpose

This course will provide students with a better understanding of invasive plant management in upland environments. Students will learn about the biology and proper identification of invasive plant species, their impacts, and how to manage invasive species in an integrated approach employing chemical, mechanical, cultural, biological, and preventative methods. This online course will consist of lectures, reading assignments, videos, and interviews. Students will learn methods of invasive plant control and plant identification and be able to discuss through posts with the instructors and student colleagues.

Course Prerequisites

Principles of Plant Science (PLS 3004c) or Botany (BOT 2010) are required, or consent of instructor.

Textbooks, Learning Materials, and Supply Fees

No textbook required but students will be provided with assigned readings from various sources including websites, journal articles, and extension publications. There will not be a lab fee.

Course Communication

Announcements related to the course will be made through the Canvas page under Announcements. Direct communication with the instructor can be made through canvas email or Gatorlink and I will respond to emails within 24 hours. All course material including presentations, reference materials, assignments, and quizzes will be posted on the canvas page. Quizzes are closed book and will be timed. Due dates for quizzes and assignments can be found in the weekly topics table posted at the end of this syllabus.

AI – Artificial Intelligence Policy

The use of AI is not allowed when taking quizzes (quizzes are closed book) or for use in discussion posts. The use of artificial intelligence is allowed, but not required, for assisting in completing assignments and the management plan, however any written submission must be in your own words. You must also cite how you used AI to assist in each assignment. For assistance in using AI please see this link https://ai.ufl.edu/for-our-students/guidance-for-students/. You must also adhere to UF polices regarding AI usage and a list of AI provided and approved tools can be found here - https://it.ufl.edu/ai/

Grading Policy

Course grading is consistent with UF grading policies.

Course Grading Structure

Assignment Type*	Point Value	Percent of Final Grade
Topic quizzes (10)	75 points each (10 x 75) = 750 points	47%
Discussions (5)	Variable = 135 points	8.4%
Calibration Assignments (2)	30 points and 20 points = 50 points	3%
Plant Identification Fact Sheets (8); and presentations (4)	Fact sheet - 40 points each (8 x 40) = 320 points Presentation-30 points each (4 x 30) = 120 points Total points = 440	27.5%
Management Plan and Presentation	200 points for plan + 25 points for presentation = 225 points	14.1%
	1600 points total	**100%**

**There will be 10 points per day deducted for late submission of assignments and quizzes. Students must be present for zoom presentations.*

Assignment Details

****note – all due dates can be found on the weekly outline table at the end of this syllabus***

1. Quizzes – will be given for selected modules on specific topics covered during presentations and associated materials. Quizzes will be timed (30 minutes) and will open on Friday and close the following Monday evening. Format for the quizzes will be discussed in the introductory presentation. There are 10 quizzes, 75 points each for a total of 750 points.
2. Discussions – there are 4 discussion posts that will be held throughout the semester. Students are expected to post at least twice and provide meaningful dialog and feedback to receive full credit. In addition, there will be at least one synchronous online session that students must attend. Details will be posted on the canvas page, including grading rubric.
3. Fact Sheets – there are 8 assigned plant identification fact sheets that will cover 4 specific groups of invasive plants. Instructions on how to complete the assignments will be posted on the canvas page a minimum of one week prior to the due date. Assignment details, including grading rubric will be posted on canvas. These are 40 points each, for a total of 320 points. In addition, students will need to create a short video to present one of their species per group, for a total of 4 presentations throughout the semester. These will be uploaded to canvas for all students to view.
4. Calibration Assignment – there will be two calibration homework assignments associated with application technologies for 30 points and 20 points.
5. Management Plan and Presentation - for this assignment students are asked to develop detailed management plans for **4 invasive species** that include information in the format of an EDIS extension publication that includes the following information:
    a) Prevention - include steps to prevent spread into new areas, reinfestation and possible EDRR (early detection, rapid response)

b) Cultural - include any anthropogenic changes and restoration pitfalls; not a full restoration plan, but any changes that might be needed to accomplish
c) Biological - discuss if available, if there are none then state why
d) Mechanical - any aspects if applicable, if this is not an option then state so and why
e) Chemical - products used and available/legal, explain use rates, timing of application, application techniques and selectivity to native species
f) Integration – putting all aspects together into a cohesive strategy

For the presentation, students will be playing the role of a Florida Fish and Wildlife Conservation Commission (FWC) biologist at a workshop and will be discussing **ONE of your invasive species**. Due to time considerations, you will have 5-10 minutes each to talk on your species. This 'event' will take place on zoom during the last week of class (April 20-22). ***The management plan is worth 200 points and the presentation is 25 points.*** Additional details about these combined assignments will be posted on the canvas page. Your management plans will be due at the time of your presentation.

Grading Scale

Grade	Points	Percentage
A	≥ 1486	93.0 - 100
A-	1440-1485	90.0 – 92.9
B+	1392 – 1439	87.0 – 89.9
B	1280 - 1391	80.0 – 86.9
C+	1232 - 1279	77.0 - 79.9
C	1120 – 1231	70.0 – 76.9
D+	1072 - 1119	67.0 – 69.9
D	960 - 1071	60.0 – 66.9
E	< 960	< 60

Technical Support

UF Computing Help Desk & Ticket Number: All technical issues require a UF Helpdesk Ticket Number. The UF Helpdesk is available 24 hours a day, 7 days a week. https://helpdesk.ufl.edu/ | 352-392-4357

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/

Campus Health and Wellness Resources

Visit https://one.uf.edu/whole-gator/topics for resources that are designed to help you thrive physically, mentally, and emotionally at UF.

Please contact UMatterWeCare for additional and immediate support.

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.

Privacy and Accessibility Policies

[required for online courses, list all technology used]

- Instructure (Canvas)
  - Instructure Privacy Policy
  - Instructure Accessibility
- Zoom
  - Zoom Privacy Policy
  - Zoom Accessibility

UF | IFAS CALS
UNIVERSITY of FLORIDA

Weekly Course Schedule

Week	Topic	Assessment	Due Dates	Points*
January 12 - 16	Introduction to course and instructor; Defining invasive plant species	Introductory self-post Discussion post	January 16 January 20	5 25
January 21 – 23	Classification, Introduction to Plant Identification	Quiz 1	January 26	75
January 26 – 30	Impacts and why manage, communication strategies	Quiz 2 Zoom session on plant ID	February 2 TBD on avail.	75 35
February 2 – 6	Sexual, asexual reproduction and dispersal mechanisms	Quiz 3 Plant Identification Set 1†	February 9 February 11, 13	75 40
February 9 – 13	Plant competition, interference, interactions	Quiz 4	February 16	75
February 16 – 20	Invasion process, pathways of invasion	Quiz 5 Plant Identification Set 2†	February 23 February 25, 27	75 40
February 23 – 27	Prevention and risk assessment	Risk Assessment Discuss. Quiz 6	February 25, 27 March 2	30 75
March 2 – 6	Principles of management, EDRR and prioritization	EDDR Discussion Quiz 7	March 4, 6 March 9	40 75
March 9 – 13	Cultural and mechanical management strategies	Plant Identification Set 3†	March 13, 15	40
March 16 -20	***SPRING BREAK – no class***	***No assessment***	----	----
March 23 – 27	Biological control development and management	Quiz 8 Plant Identification Set 4†	March 30 April 1, 3	75 40
March 30 – April 3	Herbicide registration, labeling, env. fate, plant uptake	Quiz 9	April 6	75
April 6 – 10	Herbicide mode of action, adjuvants	Quiz 10	April 13	75
April 13 – 17	Application technologies and calibration	Calibration Assignments	April 17, 20	30 + 20
April 20 - 22	Wrap-up, plant presentations via Zoom	Management Plan Species Presentation	April 22 April 22	200 25

** 1600 points total;* † presentations due by the end of the week