

FAS6360 Invasion Ecology of Aquatic Animals

Spring, 2026

CANVAS; Online Asynchronous

All students are welcome to attend in-person on Wednesdays
Periods 7-9 (1:55-4:55 pm); MCCD G001

3 credits

Instructor

Jeffrey E. Hill, Professor

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Office hours: Thursday 2-4 pm. Zoom (CANVAS)

Also available by email or phone; office visits available by appointment. Note that the instructor is located about 2 hrs from main campus.

Teaching Assistant

Katie Everett

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Ruskin, FL

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Office hours: Tuesdays 6-8 pm, every other
week. Zoom (CANVAS); *Available for meetings
on Zoom or by email, or phone*

Meghan Eaton

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Office hours: *Available for meetings on Zoom or
by email, or phone*

Course Description

This course will provide a comprehensive overview of the field of invasion ecology and will emphasize aspects related to aquatic animals. Through lectures, readings, discussions, and invited expert speakers, students will be presented with the ecological concepts and debates underlying this developing field; the biology and life history of nonnative aquatic animals, including characteristics of successful invaders (emphasis on Florida); risk analysis methodology; and the conservation and regulatory implications of nonnative aquatic species.

The course is a classroom-based, lecture format. For the online version, in-class lectures will be recorded each week and posted to CANVAS where you can view them. Assignments, exams, and discussions are completed or turned in via CANVAS.

Course Learning Objectives

At the end of this course, each student will:

- understand the concepts associated with species invasions
- use basic risk assessment methodology
- think critically to evaluate literature and arguments, especially when faced with uncertainty and scientific disagreement
- more effectively communicate orally and in scientific writing
- appreciate the complex relationship between science, management, and regulation

Course Prerequisites

None. Given the broad scope of the field of invasion ecology, the course will cover diverse topics, each requiring a base of knowledge for the course to build upon. Students should have prior coursework in biology and understand basic ecological concepts.

Textbooks, Learning Materials, and Supply Fees

There is no textbook required for the course. Required readings will be provided in Canvas. Additional, supplemental readings (not required) will be provided in Canvas for additional information if desired.

Communication Guidelines

Proper spelling and grammar must be used in all written communications. Netspeak and other internet abbreviations should be avoided.

Class Demeanor/Expectations

All interactions (e.g. class discussions, Canvas messages, emails, Zoom meetings) must be conducted in a polite, professional, and respectful manner. Harassment, bullying, and derogatory language towards other students or instructors will not be tolerated.

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

Weekly Course Schedule

Week	Date	Topic	Due Dates
1	Jan 14	Introduction/Definitions/Assignments	
2	21	Invasion Process Model	
3	28	Invasion Process Model	White paper topic due (28 th)
4	Feb 4	Assignments/Writing/Risk Screen	Review /Data paper topic due (4 th)
5	11	Hypotheses of Biological Invasions	
6	18	Evolution and Invasives	White paper due (18 th)
7	25	Impacts of Invasives	
8	March 4	Impacts of Invasives/Review	
	Online window	Midterm Exam (CANVAS) [Covers Week 1 through Week 7]	March 5-10 (Thursday-Tuesday)
9	11	Case Studies – Establishment and Impact	

Week	Date	Topic	Due Dates
10	18	Spring Break-No Class	Have Fun
11	25	Risk Analysis	
12	April 1	Risk Analysis	
13	8	Management Curve	Risk Screen due (8 th)
14	15	Management Curve	Review /Data paper due (15 th)
15	22	Regulation and Other Management/Review	
	23-24	Reading Days	
	Online window	Final Exam (CANVAS) [Cumulative]	April 25-28 (Saturday-Tuesday)

Assignment Descriptions

Projects **MUST** be turned into CANVAS by 11:59 pm on the due date. It is the responsibility of the student to maintain satisfactory progress in the course and to make up all work. Late assignments will be penalized 10% on the first day and 5% on each subsequent day. Make prior arrangements and expect to turn projects in early if there are conflicts with the schedule. Missed exams cannot be taken after the scheduled date without prior written consent of the instructor except under exceptional circumstances. Cases of serious illness, bereavement, or activities covered under the Twelve-Day Rule will be considered for make-up. Appropriate documentation must be provided in all cases.

- *Risk Screen* – Students will individually conduct a risk screen (brief risk assessment) using the Aquatic Species Invasiveness Screening Kit (AS-ISK) on the non-native species assigned by the instructor. Students will provide a copy of their completed risk assessment and climate matching maps. More detailed information and requirements will be posted in CANVAS and provided during class.
- *Policy White Paper* – Graduate students will choose a policy, regulatory, or law-based topic related to non-native aquatic species and write a brief white paper on the subject. The topic must be approved by the instructor. The white paper can be informative, pro and con, or persuasive. More detailed instructions will be provided during class and on CANVAS.
- *Topic Review/Data Paper*— Graduate students have two options for this assignment—(1) a topic mini-review or (2) a brief paper based on the analysis of a data set. Topics or data sets must be approved by the instructor. (Option 1) The student will choose an ecological topic pertinent to invasion ecology (e.g., relation of community diversity and invasibility) and write a detailed mini-review of the subject. (Option 2) The student will provide a data set pertinent to invasion ecology, analyze the data, and write a short, data-based paper. This project will provide experience in finding and obtaining literature, assimilating and synthesizing technical information, and producing a detailed, written product. More detailed instructions will be provided during class and on CANVAS.
- *Exams* – There will be two exams (a midterm and final). These will cover all information in lectures, readings, and from select invited speakers (instructions will be given

indicating included speakers). Weeks 1-7 will be covered by the midterm. The final is cumulative in the sense that the material from the second half builds upon the foundation of the first half of the course. Risk screen assignments (except what is covered in lecture), policy white papers, and topic reviews/data papers will not be covered on exams. Exams will be completed on CANVAS during the time window specified in the schedule on this syllabus.

- *Discussions* - This course includes text-based discussion threads in Canvas of the assigned readings or related topics. This forms the basis for the participation/discussion grade. **Students from all sections are required to participate.**
 - Discussions will be each week except for Week 1 and Week 15. Week 1 has a discussion thread for class introductions; class introductions are not graded.
 - Each student is required to post a minimum of three comments and/or replies per discussion.
 - There are 12 weekly discussions. The 2 lowest scoring discussions will be dropped, leaving 10 discussion scores.

Grading Policy

Course grading is consistent with [UF grading policies](#).

Course Grading Structure

500 total points

Assignment Type	Point Value	Percent of Final Grade
Risk Screening	100 pts	20%
White Paper	50 pts	10%
Review/Data Paper	100 pts	20%
Midterm Exam	100 pts	20%
Final Exam	100 pts	20%
Discussion	50 pts	10%

Grading Scale

[scale is required; plus and minus grades may be used but are not required]

Grade	Points	Percentage
A	470-500	94-100%
A-	450-469	90-93%

Grade	Points	Percentage
B+	430-449	86-89%
B	415-429	83-85%
B-	400-414	80-82%
C+	380-399	76-79%
C	365-379	73-75%
C-	350-364	70-72%
D+	330-349	66-69%
D	315-325	63-65%
D-	300-314	60-62%
E	≤299	<60%

Attendance records will not be maintained, but it is the responsibility of the student to maintain satisfactory progress in the course and to make up all work. Late project assignments will be penalized 10% on the first day and 5% on each subsequent day. Missed exams cannot be taken after the scheduled date without prior written consent of the instructor except under exceptional circumstances. Cases of serious illness, bereavement, or activities covered under the Twelve-Day Rule will be considered for make-up. Appropriate documentation must be provided in all cases.

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.ufl.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](#)