BSC 4861L

Urban Ecological Field Studies

Spring 2021

www.arboretum.ucf.edu

Office Hrs:	Wednesday, 11:30am-12:30pm at the Arboretum or via Zoom, and by appointment
Instructor Contact Information	Jennifer Elliott Jennifer.Elliott@ucf.edu Arboretum Office (Trailer 525)
TA Contact Information	Amanda Lindsay Amanda.Lindsay@ucf.edu John Guziejka John.Guziejka@ucf.edu Kelsie Johnson Kelsie.Johnson@ucf.edu

Syllabus subject to change

Course Description

The purpose of the course is to introduce students to field biology and ecology by designing projects that ask and seek to provide insight into urban ecosystem questions and concerns. Additionally, students will be guided through opportunities to effectively communicate scientific information and understand the important role of science in the world. Once fundamental information is obtained on the project topic, students will be asked to design and implement a research-based project, and publicly communicate the results.

Projects

Students will spend a minimum of 80 hours throughout the semester, no less than 5 hours/week, on their assigned project (unless specified in course schedule below). Students will spend time reflecting on their learning experiences through class conversations, submitted assignments, and public presentations (poster and oral). Student projects will address the three components of sustainability: human interactions (people), economic impacts (profit), and ecology (planet). Students will develop project objectives and research methods that address these objectives, implement projects, and communicate the results publicly through judged poster presentations. All projects are conducted on the UCF main campus and in local conservation areas, provide a service to the UCF Arboretum and Natural Resource Programs, and focus on urban ecology.

Obstacles may arise throughout the semester and students are expected to communicate issues to the instructor and project leaders immediately for resolution. If any student has a valid objection to a proposed project or team placement, he or she must let the instructor know **BEFORE** proposals are written and projects begin.

Course Requirements:

This course requires both in-class and out-of-class research time. The research activities will address a local question, support our course objectives, involve a connection between the individual and the world, and challenge students to be engaged as citizens. The course will include written papers, and oral and poster presentations. Motivated students who are willing to learn new things, and complete projects within the proposed timeframe are encouraged to enroll in this course. Professional, adult behavior is always expected!

Course Objectives:

- Develop an understanding of urban ecology including ecological sustainability that involves human interactions (people), economic impacts (profit), and ecological health (planet).
- Explore how urban ecosystems are connected to natural ecosystems.
- Use research methods to answer real-world questions.
- Publicly communicate scientific information through poster and oral presentations.

- Enhance group communication skills, and personally reflect on strengths and areas of improvement.

Project Objectives and Requirements:

- Instructor will present projects, and students will identify their prioritized choices. The instructor and project mentors will then create teams guided by student selections.
- Each team will formulate project objectives/hypothesis and tentative methods, which will be presented to the class for feedback. The final objectives/hypothesis and methods will be captured in a **formal proposal describing the project concept/objectives, project methods, and anticipated results.**
- Each team will conduct the proposed research, and write a final paper documenting the project concept/objectives and background information (introduction), methods, results (data), and discussion (what do the data mean).
- A poster presentation will be created by each team communicating the research topic, methods, and results. Posters will be presented at the Showcase of Undergraduate Research Excellence (SURE), and other appropriate local meetings and/or conferences when possible.

Required Reading Materials:

- Knisely, K. 2017. A Student Handbook for Writing in Biology, Fifth Edition.
  Massachusetts: Sinauer Associates, Inc.
- Peer-reviewed scientific journal articles will be used to develop and support projects

Evaluation Procedures

Grade Category: Project Abstract and Proposal
Description of Requirements: Students will develop a project abstract and proposal focused on their assigned group project. Students will be expected to write a project abstract for conference submission AND a project research proposal that will include an *introduction* (background information and project objectives/hypothesis), *methods* to be used to accomplish the project objective, and *anticipated results*. Properly cited literature using APA style (style used in peer-reviewed journals) must be used.
Total: 20 points (10 points each)

Grade Category: Proposal Presentations
Description of Requirements: Team presentation to share project objectives/hypothesis and research methods. Presentation will consist of two – three powerpoint slides and a 10-minute presentation with 5 minutes for discussion.
Total: 10 points

Grade Category: Implementation of Projects
Description of Requirements: Students will spend a minimum of five hours per week implementing their team project. Points will be earned by actively participating in class, completing Webcourses assignments, and participation in team project activities.
Total: 20 points

Grade Category: Poster and Oral Presentations
Description of Requirements: Students will create: (1) a group *poster presentation* (scientific presentation style) highlighting their project objective/question, methods, results, and discussion of the project relevance and findings; and (2) an individual *oral presentation* in powerpoint on the student's assigned Florida Chapter of the Wildlife Society (FLTWS) website write- up.
Total: 30 points (15 points each)

Grade Category: Final Paper
Description of Requirements: Students will be expected to turn in a final research paper that includes how their project supports urban ecological research on campus, the main goals of the project, methods used to complete the project, results, and a discussion of the project relevance.
Total: 20 points

Grading Scale: A (100-90), B+ (89-85), B (84-80), C+ (79-75), C (74-70), D (69-60), F (59-0)

Technology Requirements:

Technology	Expectations for Use
E-mail:	Use of email is permitted to schedule appointments with the instructor, to ask questions, or to notify instructor of absences. Grades will not be provided over email. Communication with classmates via email will be done at the student's discretion.
WebCT:	WebCourses will be used for this class.
Computer Software	Students must use Microsoft Word, Excel, and Power Point

Additional Policies

Grading and evaluation	Grades will be calculated according to the above evaluation procedures. **If** grades are distributed in class, and the student is absent on that day(s), an appointment must be made to get the grade from the instructor. Grades will not be given over the phone, or via email.
Attendance and participation	Attendance will not be kept. If students can not attend class, it is their responsibility to get the notes/resources to understand the key components of what was missed in class**. A large percentage of the course grade comes from participation in class conversations/activities**. If students must be absent, the absence must be communicated BEFORE the student's scheduled time to meet with teams or in class. In the event of a scheduled absence, it is best to communicate with the instructor, project mentor and leader, and project team as soon as possible to make necessary arrangements. **Nonparticipation in class activities or coming to class unprepared will result in a loss of points in the "project implementation" category. Arriving late and leaving early will carry the same penalty.**
Late and make-up	Work turned in late will lose 25% of the grade per day.
Academic integrity	Integrity, scholarship, community, creativity, and excellence are the core values that guide our conduct, performance, and decisions as members of the UCF Community as reflected in the UCF Creed. Plagiarism and cheating contradict these values and are very serious academic offenses. Penalties can include a failing grade on an assignment or in the course, or suspension or expulsion from the university. Students are expected to familiarize themselves with and follow the University's Rules of Conduct.
Accommodations for the differently-abled (alternate testing opportunities, support for signers, etc.)	The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the instructor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the instructor to request the necessary accommodations. Students who need accommodations should register with Student Accessibility Services before requesting accommodations from the professors. *Student Accessibility Services*, Ferrell Commons 7F, Room 185, phone (407) 823-2371. TTY/TDD please phone (407) 823-2116
Obligatory note from the UCF Administration	Faculty are required to document students' enrollment at the beginning of each semester. To document that you began this course, please complete the academic assignment in WebCourses by the end of the first week of classes. Failure to do so may result in a delay in the disbursement of or decline in your financial aid.

Course Schedule, Critical Themes & Goals (subject to change)**:**

Class Schedule	
Monday (Jan 11)	• Review course expectations, class introductions, and presentation of team projects
Wed (Jan 13)	• Lecture: UCF Arboretum and Natural Resource Programs; Urban Ecology/Agriculture/Horticulture, Land Management, Urban Forestry, and Student Opportunities
Friday (Jan 15)	*Add/ Drop/Swap Deadline*
Friday (Jan 15)	• Submit 5:3:1 via Webcourses for Secrets of the Longleaf Pine Documentary (link in Webcourss) • Submit Team Project Requests via Webcourses • Submit Academic Assignment via Webcourses: **(1)** upload 250-word essay: your major, academic year, why you took the class, your strengths and interests **(2)** headshot in Webcourses, **(3)** professional email account
Monday (Jan 18)	• **No Classes – Martin Luther King Holiday**
Wed (Jan 20)	• Assign Team Projects and Team Leads • **Lecture via Zoom:** Guest Speaker – UCF Science Liberian; Sandra (Sandy) Avila Library Resources: How to Find Peer Reviewed Papers, How to Properly Cite • Exercise: Find one peer reviewed scientific journal article that pertains to your team project and submit a 5:3:1 paper review along with a PDF (not a link) of the article; **due in Webcourses Friday, Jan 22 by 10 AM**
Friday (Jan 22)	• In class: Work in teams on project outline, refine research objective/question as necessary; **Meet in classroom (BA1 119)** • Exercise: Submit Research Objective/Question (1 per team**); due in Webcourses Monday, Jan 25 by 10 AM**
Monday (Jan 25)	• **Lecture via Zoom**: Guest Speaker – UCF Biology Graduate Student; Ian Biazzo – Basic Statistics and Experimental Design • Find one peer reviewed scientific journal article that pertains to your team project and submit in Webcourses a 5:3:1 paper review along with a PDF (not a link) of the article; **due in Webcourses Wednesday, Jan 27 by 10 AM**
Wed (Jan 27)	• In Class: Work in teams on abstract, proposal, and proposal presentations (methods); **Meet in classroom (BA1 119)** • Find one peer reviewed scientific journal article that pertains to your team project and submit in Webcourses a 5:3:1 paper review along with a PDF (not a link) of the article; **due in Webcourses Friday, Jan 29 by 10 AM**
Friday (Jan 29)	• In Class: Work in teams on abstract, proposal, and proposal presentations (methods); **Meet in classroom (BA1 119)**
Monday (Feb 1)	• **Project Abstract DRAFTS Due via email AND in Webcourses (1 per team)** • In Class: Work in teams on proposal, and proposal presentations (methods); **Meet in classroom (BA1 119)**
Wed (Feb 3)	• Proposal Presentations – Teams 1 & 2 share project objectives/hypothesis and scientific design/methods. Two – three powerpoint slides and 10-minute presentation with 10 minutes for discussion; **presentation due in Webcourses Wednesday, Feb 3 by 10 AM (1 per group)**
Friday (Feb 5)	• Proposal Presentations – Teams 3 & 4 share project objectives/hypothesis and scientific design/methods. Two – three powerpoint slides and 10-minute presentation with 10 minutes for discussion; **presentation due in Webcourses Friday, Feb 5 by 10 AM (1 per group)**
Monday (Feb 8)	• **SURE Applications Due (11:59 PM)** • **FINAL Abstract Due in Webcourses (1 per team) by 11:59 PM** • In Class: Work in teams on abstract edits and proposal; **Meet in classroom (BA1 119)**

Wed (Feb 10)	• **Project Proposal Due via email AND in Webcourses (1 per team) by 11:59 PM** • In Class Exercise: Work in teams on proposal; **Meet in classroom (BA1 119)**
Friday (Feb 12)	• Meet in class – Project/Proposal Discussion, project preparation
Monday (Feb 15)	• *Work on project*
Wed (Feb 17)	• *Work on project*
Friday (Feb 19)	• Meet in class – Discussion on Project Problems and Solutions
Monday (Feb 22)	• *Work on project*
Wed (Feb 24)	• *Work on project*
Friday (Feb 26)	• Meet in class – Discussion on Project Problems and Solutions
Monday (Mar 1)	• *Work on project*
Wed (Mar 3)	• *Work on project*
Friday (Mar 5)	• Meet in class – Discussion on Project Problems and Solutions
Monday (Mar 8)	• *Work on project*
Wed (Mar 10)	• *Work on project*
Friday (Mar 12)	• Meet in class – Discussion on Project Problems and Solutions
Monday (Mar 15)	• *Work on project – wrap up and poster work*
Wed (Mar 17)	• *Work on project – wrap up and poster work*
Friday (Mar 19)	• Review poster drafts in class (All Teams)
Monday (Mar 22)	• Review poster edits in class (Teams 1 and 2)
Wed (Mar 24)	• Review poster edits in class (Teams 3 and 4)
Friday (Mar 26)	• **Final Poster Due – bring digital copy to class for public evaluation (All Teams), and submit in Webcourses (1 per team)**
Monday (Mar 29)	• *Practice Poster Presentation (Teams 1 and 2)*
Wed (Mar 31)	• *Practice Poster Presentation (Teams 3 and 4)*
Thursday (Apr 1)	• **SURE Conference**
Friday (Apr 2)	• Day Off to Celebrate SURE Success – Work on Final Paper
Monday (Apr 5)	• In class: Work on Final Paper
Wed (Apr 7)	• **Arbor Day Celebration**
Friday (Apr 9)	• **FLTWS write-up due in Webcourses (1 per individual) by 10 AM** • In class: Work on Final Paper
Monday (Apr 12)	• **No Class; Spring Break**
Wed (Apr 14)	• **No Class; Spring Break**
Friday (Apr 16)	• **No Class; Spring Break**
Monday (Apr 19)	• In class: FLTWS write up presentations (Team 1) via Zoom; each team member has 5 minutes to present their critter write up – due in Webcourses (1 per individual) by 10 AM
Wed (Apr 21)	• In class: FLTWS write up presentations (Team 2) via Zoom; each team member has 5 minutes to present their critter write up – due in Webcourses (1 per individual) by 10 AM
Friday (Apr 23)	• In class: FLTWS write up presentations (Team 3) via Zoom; each team member has 5 minutes to present their critter write up – due in Webcourses (1 per individual) by 10 AM
Monday (Apr 26)	• **Final Paper Draft Due in Webcourses (1 per team) and emailed to lead instructor (Jen) and team mentor** • In class: FLTWS write up presentations (Team 4) via Zoom; each team member has 5 minutes to present their critter write up – due in Webcourses (1 per individual) by 10 AM
Wednesday Apr 28 – Tues May 4	• Final Exam Period
Final Exam	• Monday, May 3, 2021; 10 AM – 12:50 PM • **In class: Final Poster Presentations via Zoom (All Teams)** • **Final Paper Due in Webcourses (1 per team) and emailed to lead instructor (Jen)**