



Insect Research (CURE)

ENY 2890

Fall 2022 (3 credits)

★ Course Overview

This is a **course-based undergraduate research experience (CURE)** that bridges the classroom & the research lab. You will become part of a collaborative research team to **sequence & analyze mitochondrial genomes of the invasive little fire ant (*Wasmannia auropunctata*) using next-generation technology**. Through this immersive, hands-on research experience, students may generate publishable data & contribute new knowledge to the field of entomology. We'll also discuss key issues & best practices in research, such as ethics, objectivity, international collaborations, & science communication. This course is a great introduction to research, especially for students interested in genomics, evolution, and invasion biology. Committed, hard-working students will leave the course well-prepared to join research teams at UF and beyond.

This course fulfills a curriculum requirement for the **International Scholars Program**: <https://internationalcenter.ufl.edu/international-scholars-program>

Course Catalog description: ENY 2890 is a classroom undergraduate research experience (CURE) which bridges the divide between the classroom and the science laboratory and prepares for advanced opportunities in entomological science. Become part of an entomology research team, collecting publishable data on insect evolution, ecology, and systematics.

📋 Student Learning Outcomes

By the end of the course, students will be able to:

- 👁️ **Explain** the scientific method and best practices for conducting scientific research.
- 👁️ **Identify** key challenges that scientists encounter when conducting research and **assess** strategies to mitigate them.
- 👁️ **Critically read** and **evaluate** primary scientific literature.
- 👁️ Accurately **collect, analyze, and interpret** scientific data.
- 👁️ Effectively **communicate** the findings of their research to both the scientific community and general public.
- 👁️ **Explain** the benefits of international research and strategies for effectively working with scientists from other cultures.
- 👁️ **Reflect** on their personal career goals and **identify** resources and opportunities for future research on campus and beyond.

Course Information

Time: Mondays, Period 8 (3:00 - 3:50pm) & Wednesdays, Periods 7-8 (1:55 - 3:50pm)

Location: 2218 Steinmetz Hall

Prerequisites: None

Canvas: ufl.instructure.com/courses/461926

Instructor Information

Dr. Anthony Auletta
(Course Coordinator)

Email: anthonyauletta@ufl.edu

Phone: (352) 273-3954

Office: 3102 Steinmetz Hall

Office Hours: Tuesdays & Fridays, 2:00 - 3:00pm (or by appt.):

calendly.com/anthonyauletta

Dr. Peter DiGennaro

Email: pdigennaro@ufl.edu

Office: 3108 Steinmetz Hall

Dr. Shova Mishra

Email: shovamishra@ufl.edu

Office: 3106 Steinmetz Hall

Dr. Maya Saar

Email: m.baharalsaar@ufl.edu

Office: 2125 Steinmetz Hall

Dr. Andrea Lucky

Email: alucky@ufl.edu

Office: 2108 Steinmetz Hall

Teaching Assistants

We are fortunate to have an excellent **teaching assistant** joining us this semester; do not hesitate to contact your TA if you have any questions about the course:

Yichen Li (Graduate TA)

Email: yli10@ufl.edu

Office Hours: By email appointment

Readings & Course Materials

Readings & Videos: There is no textbook for this course; instead, selected articles and other readings will be posted on Canvas. Students are expected to complete all required readings before the corresponding class session. You may also be required to watch brief videos before class, which will be posted on Canvas as well.

Computer Requirement: All students must have regular access to a computer with a reliable internet connection to access assignments and materials on Canvas. A desktop or laptop computer will also be required for data analysis; the analysis software *cannot* be run on tablets or mobile phones. Laptops are recommended so that you may work on your analyses during class.

Communication & Conduct

Meeting Policy: If you need help with any aspect of the course, we encourage you to come to office hours (see the details on Page 1 of this syllabus). Alternatively, you can schedule a 1-on-1 meeting with any of the instructors. You can request a meeting with Dr. Auletta by clicking here: <http://calendly.com/anthonyauletta> and with all other instructors via email. Outside of office hours, email is our preferred method of contact. We will do our best to respond to messages within 48 hours (not including weekends or holidays). As a courtesy, please check the syllabus and Canvas before reaching out; answers to many of your questions can be found there!

Canvas: Important announcements and updates will be regularly posted to the course Canvas website, so be sure to check Canvas frequently! To ensure that you do not miss anything, please ensure that your Canvas profile is set to receive notifications.

Email Accounts: It is UF policy that you use your GatorLink account or Canvas when emailing your instructors; we will not answer emails sent from other accounts (e.g., personal Gmail, Hotmail, etc).

Professional Conduct: All members of the class are expected to conduct themselves in a professional and respectful manner at all times. Please use appropriate etiquette when interacting with your peers and instructors, including during class, on Canvas, and via email. Students who behave disrespectfully or disruptively will be reported to the Dean of Students Office.

Projects & Assignments

Quizzes: There will be several short **online quizzes** throughout the semester (see Canvas or the Course Schedule below for dates). Some of these quizzes will review important concepts that we've covered in class, while others will be based on the required readings/videos and are designed to help you prepare for our in-class discussions.

Reflections: Throughout the semester, you will be asked to submit **brief written reflections** via Canvas. The goal of these assignments is to help you expand on our discussions and think deeply about what it means to be a researcher / scientist. For some of these reflections, you may instead be asked to analyze a scientific paper relating to our research, or to write up a short progress report on your project.

Lab Notebook: You will be required to maintain a **digital lab notebook** throughout the semester, in which you will record your data/analyses and other notes related to our experiments. Proper lab notebook protocol will be discussed in class. The lab notebook will be checked for completeness and accuracy three times during the semester (two preliminary checks and 1 final evaluation).

Research Poster: As a capstone project, each research group will design a **scientific poster** that highlights their experimental design and preliminary findings. Specific poster guidelines will be discussed in class. Students will present their posters in class at the end of the semester.

Science Across Borders Assignment: One of the major themes in this course is the value of global collaborations in science. To explore this topic in more depth, you will conduct an **interview with an international researcher** and use that interview to write a **reflective essay** on the benefits and challenges of conducting research across borders. Detailed information about this assignment will be discussed in class, and the instructor will help connect you with a scientist for the interview.

Extra Credit: Extra credit assignments may be posted at the **instructors' discretion only**. Any other extra work submitted in order to raise a grade will not be accepted and requests for additional extra credit will not be considered.

Submitting assignments: *All assignments must be submitted electronically via Canvas unless otherwise noted. Emailed or paper submissions for Canvas assignments will not be accepted. You are responsible for ensuring that all your work is uploaded correctly and completely by the deadline. Corrupted files will be treated as missing work (= 0 grade) until they are reuploaded correctly and late penalties will apply if your resubmission is past the deadline. So, please always double check your files right after you upload them! If you experience technical problems when submitting your work in Canvas, contact the UF Computing Help Desk for assistance: <https://helpdesk.ufl.edu>.*

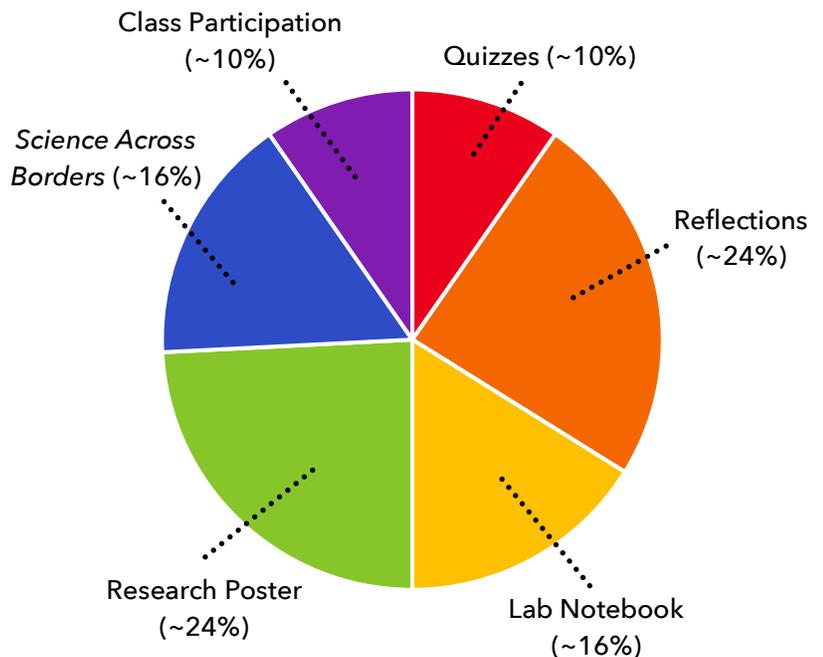
Grading Policies

This course uses a points system for grading. The anticipated maximum that can be earned in the course is **620 points**, distributed as follows:

Quizzes: **60 pts (10 pts ea.)**
Reflections: **150 pts (15 pts ea.)**
Lab Notebook: **100 pts**
Research Poster: **150 pts**
Science Across Borders: **100 pts**
Class Participation: **60 pts**

At the end of the semester, your total course grade will be converted to a letter grade using the scale below:

93 - 100% = A	73 - 76.9% = C
90 - 92.9% = A-	70 - 72.9% = C-
87 - 89.9% = B+	67 - 69.9% = D+
83 - 86.9% = B	63 - 66.9% = D
80 - 82.9% = B-	60 - 62.9% = D-
77 - 79.9% = C+	below 60% = E



Please note that the instructors do not round up grades– requests to do so will not be considered.

For current UF policies on assigning grade points, consult the following policy website:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Disputing a grade: If you wish to dispute a grade for any exam/assignment, you must contact the instructors in writing within two days (48 hours) after the assignment has been returned. In your message, you must include a specific explanation for why you think the grade is incorrect and how you think it should be changed. An instructor will then arrange a meeting with you to discuss the issue and determine whether or not the grade should be changed. The grade assigned following this meeting will be final.

Attendance & Participation

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/UGRD/academic-regulations/attendance-policies/>.

Due to the hands-on nature of this course, attendance in class is *critically important*. If you are absent, you will not be able to fully work on your research project, collaborate with your teammates, or contribute to our in-class discussions. Thus, all students are expected to **attend every**

class session on time and stay for the entire session. Students who miss more than 30% of class sessions will automatically earn an E (= failing grade) in the course. Students are also expected to be **fully prepared for and engaged** in each session– this includes completing all required readings/videos, submitting all assignments on time, paying attention during class, and actively participating in all class activities. Participation in our class sessions is worth **60 points (~10% of your final course grade).**

Since this is a **face-to-face course**, students will not have the option to join remotely via Zoom. Our class sessions will also not be recorded.

If you need to miss a class due to an **excusable absence**, you must let the instructors know **as far in advance as possible** to discuss arrangements for making up missed work. Excusable absences include serious illness or injury, family emergencies, approved professional activities, severe weather, religious holidays, & court-imposed legal obligations. In order to make up missed work, you will be required to submit appropriate documentation of your absence to the instructors.

If you are absent for any other reason or fail to notify the instructors of your absence in a timely manner, you will earn a 0 for any in-class work that you missed (make-up work will not be accepted). Please note that personal travel/vacations are not considered excusable absences, and thus students will earn a 0 for any work missed due to personal travel/vacations during the course.

If you do miss a class meeting, please contact a classmate for notes from that session; the instructors will not provide notes. If the content is still unclear after you review your classmate's notes (and the required readings/other materials on Canvas), please don't hesitate to come to office hours or schedule a meeting with an instructor. We ask that you please come to that meeting prepared to discuss the specific questions you have.

In addition to working on the research project in class, you will be expected to allocate time outside of class to work on data analysis and other aspects of the project (~3 hours/week on average).



Late Work & Make-Up Assignments

All assignments must be submitted **by the due date and time indicated on Canvas**. If you miss a class, you are **still responsible** for turning in the work due on that date at the required time. If an assignment is submitted late, 20% of its total point value will be deducted for every day that it is late. Credit cannot be earned for assignments that are turned in 5+ days past the due date, or for those that are submitted after the instructor has graded and returned the assignment to the class. Late work will not be accepted after the deadline for the final assignment in the course.

Each student in the class has **one free extension** that they can use to submit a quiz or reflection up to 24 hours after the deadline (no questions asked). As long as the assignment is submitted within this 24-hour grace period, it will not be considered late. If the assignment is submitted more than 24 hours late, or if you have already used your free extension, the usual late penalties described

above will be applied. You cannot use your free extension on any of the major assignments in the course (the research poster, lab notebook, or *Science Across Borders* project).

Additional extensions will be considered on a *case-by-case basis* (at the instructors' discretion) only in the event of unforeseen emergencies. In such a case, you must contact the instructors as soon as possible to discuss the situation; note that the instructors may request documentation. No extensions will be granted for students who miss the due date for any other reason.

A note about deadlines: Remember, the due date doesn't have to be the "do" date! In other words, we encourage you to work on your assignments in advance- don't wait until right before the deadline to submit your work! Last-minute computer problems or other non-emergency situations that arise right before the deadline are not valid reasons for requesting an extension; such requests will not be considered and late penalties will be applied to your work if it is not submitted before the deadline.



Course Schedule

Below is a tentative* schedule of topics & assignments for the semester. Readings/videos for each session will be posted on Canvas and must be completed before the start of class. All assignments must be submitted via Canvas by 11:59pm on the due date (unless indicated otherwise).

Week	Date	Topic	Assignments
1	Aug. 24 (W)	Introduction to the Course What is Science?	
2	Aug. 29 (M)	Ant Biology & Invasive Species	Reflection #1 (9/2)
	Aug. 31 (W)	The Little Fire Ant, <i>Wasmannia auropunctata</i> Research Questions & Hypotheses	
3	Sep. 5 (M)	Labor Day- NO CLASS!	Quiz #1 (9/7)
	Sep. 7 (W)	Overview of DNA & Genome Sequencing Lab Notebook Guidelines	Reflection #2 (9/9)
4	Sep. 12 (M)	DNA Extraction & Amplification	Quiz #2 (9/16)
	Sep. 14 (W)	DNA Quantification Virtual Tour of the UF Sequencing Center	
5	Sep. 19 (M)	Introduction to HiPerGator	Reflection #3 (9/23)
	Sep. 21 (W)	HiPerGator Practice	
6	Sep. 26 (M)	Science Across Borders: The Benefits & Challenges of International Research	Quiz #3 (9/27)
	Sep. 28 (W)	How to Read a Scientific Paper Preparing for Your Interviews	
7	Oct. 3 (M)	Discussion: Objectivity & Bias in Science	Quiz #4 (10/2)
	Oct. 5 (W)	Data Analysis & Visualization	Notebook Check #1 (10/5) Reflection #4 (10/7)

8	Oct. 10 (M)	Data Analysis & Visualization	Interview Questions (10/10)
	Oct. 12 (W)	Science Communication Designing a Research Poster	Reflection #5 (10/14)
9	Oct. 17 (M)	Data Analysis & Visualization	Reflection #6 (10/21)
	Oct. 19 (W)	Data Analysis & Visualization	
10	Oct. 24 (M)	Data Analysis & Visualization	Quiz #5 (10/25)
	Oct. 26 (W)	Discussion: Research Ethics	Reflection #7 (10/28)
11	Oct. 31 (M)	Data Analysis & Visualization	Reflection #8 (11/4)
	Nov. 2 (W)	Data Analysis & Visualization	
12	Nov. 7 (M)	Data Analysis & Visualization	Notebook Check #2 (11/9)
	Nov. 9 (W)	Data Analysis & Visualization	Reflection #9 (11/11)
13	Nov. 14 (M)	Data Analysis & Visualization	Poster Draft (11/14)
	Nov. 16 (W)	Data Analysis & Visualization	
14	Nov. 21 (M)	Data Analysis & Visualization	Interview Transcript (11/21)
	Nov. 23 (W)	Thanksgiving Break- NO CLASS!	
15	Nov. 28 (M)	Data Analysis & Visualization	Quiz #6 (11/29)
	Nov. 30 (W)	Panel Discussion with Visiting Graduate Students	Final Poster (11/30)
16	Dec. 5 (M)	Data Analysis & Visualization	Reflection #10 (12/6)
	Dec. 7 (W)	Research Poster Presentations Course Wrap-Up: Reflecting on our Research Experience	Final Notebook Eval. (12/7)
Finals Week	Dec. 16 (F)	-----	Science Across Borders essay (12/16 by 12pm)

* Although we will do our best to adhere to this schedule, it may be adjusted during the semester to accommodate opportunities, disruptions, and other circumstances. These changes will be communicated clearly via Canvas.



List of Important Dates

Key dates to remember are below– be sure to add them to your calendar now! Due dates for other assignments are listed in the Course Schedule above and/or on Canvas.

- September 5: Labor Day (no class)
- November 14: Research poster draft due
- November 21: *Science Across Borders* interview transcript due
- November 23-26: Thanksgiving Break (no class)
- November 30: Final research poster due (for printing)
- December 7: Research poster presentations & final lab notebook evaluations
- December 16: *Science Across Borders* essay due

COVID-19 Safety

This is a **face-to-face course** that requires hands-on lab work and in-class discussions. Thus, all students must attend class in person to fully participate (see the Attendance Policy above). To help maintain a safe learning environment, everyone is expected to comply with all **COVID-19 safety guidelines** that are posted on the course Canvas website, as well as the university-wide policies relating to COVID-19 (which can be found at <https://coronavirus.ufl.edu>). Students who do not follow these guidelines will be dismissed from class and considered absent for that day, and may also be reported to the Dean of Students Office for misconduct. Due to the unpredictable nature of the pandemic, these guidelines may change during the semester; all changes will be clearly communicated in class and via Canvas. It is your responsibility to stay informed of these updates and adhere to the latest guidance provided by the instructors. Thank you for doing your part to keep our community safe!

Laboratory Guidelines

Everyone is required to follow all **lab safety instructions** and other **lab procedures** provided by the instructors. These procedures will be clearly communicated via Canvas and/or during class. While in the laboratory, all students must wear closed-toed shoes. Also note that food and beverages are not permitted in the lab. During the course, you may handle insect specimens and use microscopes or other lab equipment; please treat these specimens and instruments with care! Always ask an instructor if you are uncertain about how to use an instrument. Students who do not adhere to these guidelines will be dismissed from the lab and considered absent for that day, and may also be reported to the Dean of Students Office for misconduct. You may also be liable for any damages to lab equipment that result from your misuse.

University Policy on Academic Honesty

As a student at the University of Florida, you have committed yourself to uphold the **Honor Code**, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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."*

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). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. 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: <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code>.

Instructors' note: Any action that *subverts the learning goals* of the course (or a particular course activity) will be treated as academic misconduct and reported to the Dean of Students Office. This includes- but is not limited to- cheating or assisting others in cheating, plagiarism (i.e., misrepresenting someone else's work as your own, whether it is copied directly or paraphrased), self-plagiarism (i.e., copying/reusing work that you have submitted previously), collaborating with others when it is not permitted, fabricating data, lying to an instructor, and bad faith attempts to undermine the intent of an learning activity. In addition to being reported to the Dean of Students Office, a student will earn a grade of 0 on any assignment that is plagiarized or that otherwise violates these academic honesty policies. This 0 grade is irreversible- it cannot be dropped and the assignment cannot be resubmitted for a different grade. After this, any subsequent incidents of plagiarism or academic honesty will result in an automatic E (= failing grade) in the course.



Accommodations 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.

Disability Resource Center

001 Reid Hall
(352) 392-8565 | <https://disability.ufl.edu/>

Instructors' note: We want you to succeed in this course! To ensure your accommodations are in place when you need them, please be sure to have your DRC accommodation letter sent to us as early as possible- ideally at the beginning of the semester.



Policy on Recording Class Sessions

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.

Use of Electronic Devices

You may use personal electronic devices such as laptops or tablets in class, unless otherwise noted by the instructor. However, it is your responsibility to make sure that you use your devices in a **professional and courteous manner**. This includes:

- Limiting device use only to activities that are **directly related to your learning of course material**, such as taking notes or running data analyses. Using your devices for any other purpose is not allowed in the classroom; doing so is disrespectful to the instructor, distracting to your fellow students, and robs you of a quality learning experience.
- Keeping your devices **muted at all times** to prevent disrupting others around you.
- Quietly stepping out into the hall if you must take a call or contact someone. We understand that emergencies can happen and will not prevent you from attending to them, but we also ask that you try to minimize disruptions to your peers.

If your device use is disruptive or inappropriate, you will be asked to put away your device. Students who repeatedly violate this policy will no longer be allowed to use devices in 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.

During the course, you will use **HiPerGator** to analyze the data for your research project. By participating in this course, you agree to the following policies regarding HiPerGator:

- **Acceptable Use:** *I acknowledge that the access to the HPC resources operated by UF Research Computing is subject to the UF Acceptable Use Policy at <https://it.ufl.edu/policies/acceptable-use/acceptable-use-policy/> and the Research Computing policies at <https://www.rc.ufl.edu/documentation/procedures/> and that I am responsible for following these policies.*
- **Restricted Data:** *I also certify that using restricted data and software on the HPC resources requires extra steps described at UFRC Policies and at UFRC Export Policies, and that I will notify both my account sponsor and the Office of Research (Research Compliance) and Research Computing at <https://support.rc.ufl.edu> when I am working with such data.*

Course Evaluations

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. 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 wellbeing 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:

University Counseling & Wellness Center

Counseling Services, Groups and Workshops, Outreach and Consultation, Self-Help Library, Wellness Coaching

3190 Radio Road

(352) 392-1575; <https://counseling.ufl.edu>

Other campus resources include:

U Matter, We Care: <http://umatter.ufl.edu>

Career Connections Center: Reitz Student Union- First Floor; (352) 392-1601;
<http://career.ufl.edu>

Student Success Initiative: <http://studentsuccess.ufl.edu>

Student Complaints: Complaints regarding on-campus courses may be filed at <https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/>. For online courses, please see <https://distance.ufl.edu/getting-help/student-complaint-process/>

It is your responsibility to ensure that you fully understand the policies outlined in this syllabus as well as the policies of the university as they relate to this course. By remaining enrolled in this course, you agree that you have read and understood all of these policies and that you will be held accountable to them.

At their discretion, the instructors may change aspects of the course during the semester to accommodate new opportunities, unforeseen disruptions, or other circumstances. These changes will be communicated clearly in class and through Canvas. The current version of the syllabus will always be available on our course's Canvas website. It is your responsibility to ensure that you are following the most recent version of the syllabus.

If you have any questions, please contact the instructors as soon as possible (preferably at the beginning of the course)!

Cover Photo: Little fire ant (*Wasmannia auropunctata*) workers investigate each other
by Alexander Wild (alexanderwild.com)