Principles of Nematology
NEM3002/5004C
Spring 2022 (3 credits)

Course Information

Online, asynchronous

Students are required to attend at least 4 of the twice-weekly group discussions available throughout the semester by Zoom****

Zoom Link for Discussion Sessions:
ufl.zoom.us/j/354873085

Canvas Website:
ufl.instructure.com/courses/426585

Instructor Information

Dr. Peter DiGennaro

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Phone: (352) 273-3959
Office: 3108 Steinmetz Hall
Office Hours: By appointment
*please use the twice-weekly group discussion for questions before soliciting office hours!

Graduate Teaching Assistants

Parr McQueen
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Office Hours: By appointment

⭐ Course Overview

Nematodes are the most numerous multi-cellular animals on earth. They are present everywhere, ranging from the coldest deserts in Antarctica to the tallest mountains and deepest ocean sediments. Nematodes are incredibly diverse. A handful of soil can contain hundreds of nematode species. Some nematodes are crucial to ecosystem processes like decomposition, nutrient mineralization, and even plant parasitism. Other nematodes are parasites of most invertebrate and vertebrate animals, including humans. In other words, nematodes are everywhere! Find out more about the worms that you tread upon every day. This course will peak your curiosity about nematodes and prepare you for advanced nematology courses or classes in allied fields such as entomology, plant pathology, parasitology, and zoology.

Course Catalog description: *NEM 3002/5004C Principles of Nematology   3 Credits*
***Grading Scheme:** Letter Grade*
Introduces nematology, including studies of morphology, life histories and control of the major nematode parasites of plants. Also includes studies of the bionomics of certain soil nematodes and nematode parasites of vertebrates and arthropods.
***Attributes:** General Education - Biological Science*

📋 Student Learning Outcomes

By the end of this course, you will be familiar with the basics of nematology.

You will discover:
- **How nematodes are related to other worm-like invertebrates**
- **How nematodes look**
- **How nematodes function**
- **Where nematodes live**
- **How nematodes are classified**
- **Numerous nematodes complex life histories**
- **The many critical roles that nematodes play in ecology and our world**
- **Aspects of managing parasitic nematodes**
- **History of nematode discovery**

In working towards these goals, it is my hope to foster a sense of curiosity and appreciation for the natural world, as well as an enhanced interest in contributing to our collective understanding of it.

This course will require you to engage as an independent scholar by identifying connections between personal interests and course content and involves searching for outside supplemental material to complete assignments.

Readings & Course Materials

Required Readings: Required readings will consist of articles and book chapters that will be posted on the Canvas website before each class session. Occasionally, these readings may be supplemented by brief videos, podcasts, or other media, which will also be posted on Canvas.

Required Materials: All students must have access to a laptop or desktop computer.

Meeting Policy & Course Communication

Meeting Policy: We are happy to discuss any aspect of this course with you! Outside of office hours, email is the preferred method of contact for both Dr. DiGennaro and the TA. We will attempt to respond within 24 hours to emails received Monday-Friday, or by the following workday to emails sent during weekends and holidays. As a courtesy, please check this syllabus and Canvas site for answers first!

Canvas: Important announcements and updates will be periodically 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.

Note about Email Accounts: UF policies require you to use your GatorLink account or the Canvas mail system when emailing your instructors; we will not answer emails sent from other accounts (e.g., Gmail).

Professional Conduct: Everyone in the class is always expected to conduct themselves in a professional and respectful manner. As such, please use appropriate etiquette when interacting with your peers and instructors, including via Canvas & email.

Attendance & Participation

Due to the online and asynchronous nature of this course, participation in class is critically important. If you are unable to complete course material or attend the required number of class discussion, you will not be able to succeed. Thus, all students are expected to **attend at least 4 of the 28 available class discussion** and **stay for the entire 30-minute session**. If a student is unable to attend *any* of the class discussions due to time conflicts, it is their duty to inform the instructor as soon as possible to find alternative meeting times. Students are also expected to be **fully prepared for and engaged** in this course— this includes doing all readings, submitting all assignments by their deadlines, and participating in class activities.

If you need to miss class discussions due to an **excusable absence**, you must let the instructor know as far in advance as possible to discuss arrangements for making up any missed work. The instructor may request documentation of the absence. If you are absent for any other reason or fail to notify the instructor of an excusable absence in a timely manner, you won't be able to make up the work.

> *Per UF Attendance Policy (Link), **excusable absences** include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, professional conferences), military obligations, severe weather conditions, religious holidays, participation in official university activities (e.g., music performances, athletic competition or debate), court-imposed legal obligations (e.g., jury duty or subpoena), and special circumstances approved by the instructor.*

Assignments

WEEKLY
- **Quizzes:** There are 13 <u>online quizzes</u> throughout the semester (see the Course Schedule for dates), which must be submitted in Canvas. These assignments are designed to help you keep up with the readings and ensure that you are prepared for our discussions and other activities.
- **Discussion Boards:** Throughout the semester, you will be asked to submit <u>brief written reflections</u> of the module content via Canvas. The goal of these assignments is to help you think deeply about the content, including the ideas shared by your peers and colleagues. (See Course Schedule & Canvas for details & dates).

COURSE PROJECTS
- **Interview Assignment:** One of the major themes woven throughout this course is the value of conducting science collaboratively. To explore this topic more deeply, each student group will conduct an **<u>interview</u>** with a nematology researcher and use that information to prepare an essay in which they discuss the <u>benefits and challenges of collaborations in science</u>. Detailed information about this assignment is available on the canvas site.
- **Group Microscope Project:** The group project involves the assembly of a smartphone microscope (available from Dr. DiGennaro), collection of soil samples and subsequent nematode isolation and viewing with the microscope. Groups will work together and document the entire process, submitting one group project detailing their work. Detailed information about this assignment is available on the Canvas site. ***Students may opt to work alone on the microscope project or submit a Featured Creature article (NEM3002 only) instead. Details are available on the Canvas site.***

NEM3002 Only
- **Nematode Hiring Writing:** This written project will challenge you to write a CV and cover letter, from the perspective of a nematode of your choice, in response to a job opening. You will evaluate your peers' applications packets as they detail what makes their nematode ideal for the specific position offered.
- **Extra Credit:** You may earn up to 10 bonus points for attending a <u>nematology research seminar</u> during the semester and preparing a 1 page (single-spaced) reflective paper about it. There will be <u>no other</u> extra credit in this course; any additional work submitted in order to raise a grade will not be accepted.

NEM5004C Only
in addition to the assignments above, students in the graduate section have additional assignments
- **Paper Review:** A recent and relevant publication will be posted with each module for review and directed discussion through discussion boards.
- **Featured Creature Article:** A [Featured Creature](#) article is to be written following formatting guidelines on the nematode of your choice. Dr. DiGennaro will select one article to help get published as an EDIS document. (Other articles can be published upon student request).
- **Nematology Seminar:** Recorded seminars from the current NEM6931 course will be posted or can be viewed live (see Canvas for information). Assignment includes viewing and scoring the seminar with a rubric for presentation.

> *Submitting assignments: All assignments must be submitted electronically through Canvas unless otherwise noted. You are responsible for ensuring that all of your work is uploaded <u>correctly and completely</u> by the deadline. Documents that are incomplete, corrupted, or blank will be treated as <u>late work</u> (with associated penalties) until they are re-uploaded correctly, so please always double check your files!*

⏰ Policy on Late Work

All assignments must be submitted by the due date and time indicated in this syllabus.

If you miss a class session, you are still responsible for turning in the work due on that date at the required time. Penalty-free extensions on assignments will be considered on a *case-by-case basis* only in the event of an unforeseen excusable absence or other emergency. In such a case, you must contact the instructor as soon as you are able to discuss these arrangements. There will be no extensions granted for students who miss the due date for any other reason.

🅰 Grading

NEM3002		
Quizzes	20%	Quizzes are weekly, to be done independently
Discussion Boards	15%	Discussion boards are weekly, within your group
Microscope Project	20%	The microscope project is submitted as a group
Interview	20%	The interview is submitted as a group
Hiring Project	10%	The hiring project is to be done independently
Final Exam	10%	Final Exam is cumulative
Discussion Attendance	5%	Discussions are held twice weekly by Zoom for 30min

NEM5004C		
Quizzes	15%	Quizzes are weekly, to be done independently
Discussion Boards	20%	Discussions are weekly, within your group, includes seminars
Microscope Project	15%	The microscope project is submitted as a group
Interview	15%	The interview is submitted as a group
FC Article	20%	Submitted independently with option to publish
Final Exam	10%	Final Exam is cumulative
Discussion Attendance	5%	Discussions are held twice weekly by Zoom for 30min

Grading Scale

93-100	A	77-79	C+
90-92	A-	73-76	C
87-89	B+	70-72	C-
83-86	B	60-69	D
80-82	B-	<60	E

Please note that the instructor does not round up grades— requests to do so will not be honored.

For current UF policies on assigning grade points, consult the following policy website: Link

📅 Course Schedule

Below is a tentative* schedule of topics and assignments for the semester. Readings and other materials for each session will be posted on Canvas. Unless otherwise noted, all readings and assignments must be completed/submitted on the indicated due date.

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.

WEEK	DATE	MODULES	DISCUSSION BOARD	QUIZZES	PROJECT	INTERVIEW	EXAMS
1	Jan 5	Module 0 - Welcome	DB 0		Set Groups		
2	Jan 10	Module 1 – Ecology 1	DB 1	Quiz 1	Collect Microscopes		
3	Jan 18	Module 2 – Ecology 2	DB 2	Quiz 2			
4	Jan 24	Module 3 – Morph. and Func. 1	DB 3	Quiz 3	Collect Samples and View		
5	Jan 31	Module 4 – Morph. and Func. 2	DB 4	Quiz 4			
6	Feb 7	Module 5 – Morph. and Func. 3	DB 5	Quiz 5		Contact Interviewee	
7	Feb 14	Module 6 - Survival	DB 6	Quiz 6	Report		
8	Feb 21	Module 7 - Classification	DB 7	Quiz 7		Conduct Interview	
10	Feb 28	Module 8 - Symbioses	DB 8	Quiz 8			
11	Mar 7	Spring Break					
12	Mar 14	Module 9 – Insects Associations	DB 9	Quiz 9			
12	Mar 21	Module 10 – Vertebrate Parasites	DB 10	Quiz 10	Write CV and cover letter	Report	
13	Mar 28	Module 11 - Plant Parasites	DB 11	Quiz 11			
14	Apr 4	Module 12 – Control	DB 12	Quiz 12	Evaluate CVs and cover letters		
15	Apr 11	Module 13 – Nobel Prizes	DB 13	Quiz 13			
16	Apr 18	**Final Exam**		**REVIEW**			**FINAL 1 – 13**

📅 List of Important Dates

Key dates to remember are below— be sure to add them to your calendar!

- January 5th – First day of class!
- January 17th – Holiday
- Feb 14th – Microscope Projects Due
- March 21st – Interview Reflection Due
- March 28th – CVs and Cover Letters Due
- April 11th – Hiring Evaluations Due
- April 20th – Final on Modules 1 – 13 Due

**Due dates for smaller assignments (such as quizzes, discussion boards and preliminary stages of larger projects) are listed on Canvas.

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: www.dso.ufl.edu/sccr/process/student-conduct-honor-code

Accommodations for Students with Disabilities

The **Disability Resource Center** (DRC) 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 accommodations must first register with the DRC (contact information below). The DRC will provide you with the necessary documentation, which you must then present to the instructor when requesting accommodations.

Disability Resource Center

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

Instructor's Note: Remember, I want to help you succeed in this course! After I receive your request and documentation, I will arrange a meeting with you to discuss the accommodation options in more detail. To ensure that the necessary accommodations are in place as early as possible, please be sure to start this process **at (or before) the beginning of the semester**!

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.

Course Evaluations

At the end of the semester, you will be asked to rate and comment on the quality of instruction using a standard set of university and college criteria. *Your feedback on this course is very important* and will inform efforts to improve teaching and learning across the college and university. In addition, your assessment is extremely valuable for your individual instructor— thoughtful, constructive feedback will help me build on my strengths as an educator as well as identify strategies for improvement.

Course evaluations must be submitted online through the **GatorEvals** system. You will be notified via email when the evaluation period opens, and you can complete your evaluation by either (1) clicking the link in the email you receive from GatorEvals, (2) accessing it via Canvas under the GatorEvals menu, or (3) going to https://ufl.bluera.com/ufl/. Class time will be set aside during the last session of the semester for you to complete your evaluation. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

When filling out your evaluation, please be sure that your comments are not only **honest**, but also **professional** and **respectful**. For guidance on providing feedback in a professional manner, please consult the following website: https://gatorevals.aa.ufl.edu/students/.

Health & Wellness Resources

School (and life!) can often be stressful. If you are experiencing a crisis, health problem, or any other issue that interferes with your academic performance or general wellbeing, I encourage you to make full use of the university's health and wellness resources:

• **U Matter, We Care**: The *U Matter, We Care* initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or someone you know is in distress, please contact U Matter, We Care by calling (352) 392-1575, sending a message to umatter@ufl.edu, or visiting http://umatter.ufl.edu/. A team member will reach out to the student in distress and connect them to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength.

• **University Counseling & Wellness Center**: The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. For more information about these services and scheduling an appointment, please call (352) 392-1575, visit http://counseling.ufl.edu/, or visit the Counseling & Wellness Center at 3190 Radio Road. Gainesville, FL, 32611. Counseling is available for both crisis and non-crisis situations.

• **Student Health Care Center**: If you are experiencing a health problem that requires medical attention, please reach out to the Student Health Care Center. You can visit http://shcc.ufl.edu/ or call (352) 392-1161 for 24/7 information on how to find the care you need.

• **UF Health Shands Emergency Room / Trauma Center**: For immediate medical care, call (352) 733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL, 32608. More information can be found at http://ufhealth.org/emergency-room-trauma-center/.

• **Hitchcock Field & Fork Pantry**: If you are facing food insecurity, the Hitchcock Field and Fork Pantry can help. The Pantry is located on campus (on Reitz Lawn, across from the Hub and east of McCarty Hall A) and provides food to those in need— no questions asked. For more information, please visit http://pantry.fieldandfork.ufl.edu/.

Academic Resources

If you are struggling academically or professionally, there are many resources at the university that can help, and I would encourage you to make use of those resources.

- **Career Connections Center**: The Career Connections Center offers career counseling and other services to students who have questions or concerns about their professional development. For more information, you can go to http://career.ufl.edu/, call (352) 392-1601, or visit the Career Connections Center in Suite 1300 of the Reitz Student Union.

- **E-learning Technical Support**: If you are experiencing technical problems with Canvas, please contact the UF Computing Help Desk by calling (352) 392-4357 or via e-mail at helpdesk@ufl.edu.

- **Library Support**: If you need assistance finding materials at the university libraries or using library services, please use the Ask-A-Librarian service at http://cms.uflib.ufl.edu/ask/. General information about the library system can be found at http://cms.uflib.ufl.edu/.

- **Student Complaints**: Complaints regarding on-campus courses may be filed at https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/.

*** It is your responsibility to make sure that you fully understand the course policies outlined in this syllabus, as well as the policies of the university as they relate to this course. If you have any questions, please contact the instructor! ***