



NEM 3002/5004c

Principles of Nematology

College of Agriculture and Life Sciences

Entomology and Nematology Department

Course Information

Term: Spring 2026

Class Modality: Online Asynchronous

Credit Hours: 3.00

Instructor Information

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Office Hours: Friday 13:00 – 15:00 by email appointment
at least 48h in advance



Course Description

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. Nathan Augustus Cobb, the ‘father of Nematology in the United States’, aptly captured the ubiquitousness of nematodes in his quote: *“If all the matter in the universe except the nematodes were swept away, our world would still be dimly recognizable ... we should find its mountains, hills, vales, rivers, lakes, and oceans represented by a film of nematodes. The location of towns would be decipherable, since for every massing of human beings, there would be a corresponding massing of certain nematodes. Trees would still stand in ghostly rows representing our streets and highways.”*

This quote reminds us of how incredibly diverse nematodes are. 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 a significant part of our lives!

Find out more about the worms that you tread upon every day. This course will pique 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 Goals

To succeed in this course, you will need to be collaborative, and work with your group through weekly discussions and course projects as well as commit to exploring, in times at depth, all things nematology. Immersion in this course means using the discussion prompts to go outside course material and explore nematology globally.

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 have 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 our hope to foster a sense of curiosity and appreciation for the natural world and 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 searching for outside supplemental material to complete assignments.

Course Materials and Resources

All course materials required for this course are available on the canvas class site. Lecture videos and required and optional reading materials are available for each module. There are no books required for this course.

Minimum Technology Requirements

The University of Florida expects students enrolled in an online program to acquire computer hardware and software appropriate to their degree program. Most computers can meet the following general requirements. A student's computer configuration should include:

- Webcam
- Microphone
- Broadband connection to the internet and related equipment (cable/DSL modem)
- Microsoft Office Suite installed (provided by the university)

Individual colleges may have additional requirements or recommendations, which students should review before starting their program.

Minimum Technical Skills Required

To complete your tasks for this course, you will need a basic understanding of operating a computer, using word-processing software, and other online tools for communication (zoom), graphic design (canva.com) and reference management (Mendeley).

Zoom: Zoom is an easy-to-use video conferencing service available to all UF students, faculty and staff that allows for meetings of up to 100 participants. You can find resources and help using zoom at the [University of Florida's Zoom Website](#).

Canva: [Canva](#) is a free, easy-to-use, click and add graphic design software that is available online for anyone to use.

Mendeley: [Mendeley](#) is a free reference management software available to collect and organize scientific references. It has an optional plugin for Microsoft Word that helps cite references as you write.

Course Assessment and Grading

Due dates: All assignments are due at 21:00h Gainesville time on the date they are due. No late submissions will be accepted. Students must account for technical glitches. In case of canvas issues, assignments must be submitted as email attachment to the instructor within the deadline.

Weekly Quizzes and Discussion Boards

- **Quizzes (100 points):** There are online quizzes for learning modules 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. These quizzes are available to you only after you have viewed and studied the course lecture videos. Only the 10 best quiz scores will be used to calculate student final grades, to provide flexibility to all students.

- **Discussions (100 points):** Throughout the semester you will be asked to submit brief written reflections 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). You can use the prompts to formulate your discussion post. Please note that these discussions must be in your own words based on your own experience. Please do not use AI tools to do critical thinking for you - it helps only the AI companies. You are also required to critically analyze and comment on at least one other student's discussion post. Separate points are earned for posting your thoughts on the material and the prompt, and for critically engaging with your peers. The discussion boards are available only after successful completion of the quiz for that module. Only the 10 best discussion board engagements (posts and replies) will be used to calculate student final grades, to provide flexibility to all students.

Course Projects

- **Project 1 - for both undergraduate and graduate students (100 points)**
 - **Week 8 Communicating Science of Nematology [NEM3002 & NEM5004C]:** This is an individual assignment. One of the major themes woven throughout this course is the value of communicating science of Nematology. To explore this topic more deeply, each student will create either an infographic or a podcast recording. Select a nematode issue of choosing (but it must be relevant to one of the modules of this course). You are encouraged to select a nematode issue relevant to your career goals that demand public awareness. Create an educative and informative infographic or podcast recording that explains the bases, significance, prevention and relevant solutions for the chosen nematode problem. Detailed information about this assignment including the grading rubric is available on the Canvas site.
- **Undergraduate Student Project 2 [NEM3002 only] (100 points)**
 - **Week 10 Reflective Essay/ iSearch Paper:** Towards the end of the 10th week, you will submit a three-page, single-spaced reflective essay. This essay/ iSearch paper will include your thoughts on the most significant takeaway from the course, its potential impact on your career, and an

exploration of careers in nematology through internet research. Along with your reflection you will describe your search and re-search methodologies ([iSearch paper guidelines](#)). Detailed information about this assignment including the grading rubric is available on the Canvas site.

- **Graduate Student Project 2 [NEM5004c only] (100 points)**
 - **Week 10 Evolution of Nematode Management [NEM5004C]:** Students will conduct an extensive literature review and learn to synthesize and critically evaluate information about research and advancements in nematode management over the last 20 years. This project focuses on various management strategies, such as chemical, biological, and integrated approaches. It also covers a wide range of crops and nematode species worldwide.

You will be offered a few options of review article topics to choose from, during week 2. Multiple students can choose the same topic. However, you are strongly encouraged to choose a topic that closely aligns with your research. Should you want to review a topic that is not on the list, you must communicate the topic by week 3 and seek feedback from the instructor. Assignments must be submitted by the end of Week 10.

In this project, you will

- Discover the available nematode management options over the two decades of the focused review.
- Learn the most important nematode species, most commonly researched by nematologists, globally.
- Learn to conduct independent literature review on other topics of interest.

More detailed information about this assignment including the grading rubric is available on the Canvas site.

Final Exam - Cumulative

- **For Undergraduate Students [NEM 3002 only] (100 points)**
 - A final cumulative exam with 100 multiple-choice questions, one point each. You will have one attempt at this exam with HonorLock proctoring and a maximum time limit of 3 hours. Please ensure that you have enough time to finish the exam before you start.
- **For Graduate Students [NEM 5004c only] (100 points)**
 - A final cumulative exam comprising both multiple-choice questions and short answer questions. Each multiple-choice question is worth one point

and each short-answer question is worth 3 points. You will have one attempt at this exam with HonorLock proctoring and a maximum time limit of 3 hours. Please ensure that you have enough time to finish the exam before you start.

Extra Credit: There will be no other extra credit in this course; any additional work submitted to raise a grade will not be accepted.

Grading Scheme

Summary of Maximum Possible Grades

Assessment	Course Weightage	Total Points
Best 10 Weekly Quizzes (10 x 10 points)	20%	100
Best 10 Discussion Posts (10 x 10 points)	20%	100
Infographics/ Podcast	20%	100
iSearch paper (NEM 3002)/Review article (NEM 5004c)	20%	100
Final Cumulative Exam	20%	100
Course Total	100%	500

All grades in this class are earned and not negotiated. There will be no rounding up of grades or points. All grades will be based on the final tally of points earned and accrued by the student throughout the semester. For example, 464 points is an 'A-' while 465 points is an 'A' grade.

Points	Percent	Grade	Grade Points
465-500	93-100	A	4.00
450-464	90-92	A-	3.67
435-449	87-89	B+	3.33
415-434	83-86	B	3.00
400-414	80-82	B-	2.67

Points	Percent	Grade	Grade Points
385-399	77-79	C+	2.33
365-384	73-76	C	2.00
350-364	70-72	C-	1.67
300-349	60-69	D	1.00
<300	<60	E	0.00

University Policies

University Policy on Accommodating Students with Disabilities

Students with disabilities requesting accommodations should first register with the [Disability Resource Center](#). (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter that must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

University Policy on Academic Conduct

UF students are bound by The Honor Pledge, which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code." On all work submitted for credit by students 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." The [Student Honor Code and Student Conduct Code](#). specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Plagiarism

The [Student Honor Code and Student Conduct Code](#). state that:

"A Student must not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

- Stealing, misquoting, insufficiently paraphrasing, or patch-writing.
- Self-plagiarism is the reuse of the student's own submitted work, or the simultaneous submission of the student's own work, without the full and clear acknowledgment and permission of the faculty to whom it is submitted.
- Submitting materials from any source without proper attribution.
- Submitting a document, assignment, or material that, in whole or in part, is identical or substantially identical to a document or assignment the student did not author."

Technical Difficulties

For help with technical issues or difficulties with Canvas, please contact the UF Computing Help Desk at:

- <http://helpdesk.ufl.edu>
- 352-392-HELP (4357)
- Walk-in: HUB 132

All assignments are due at 21:00h Gainesville time on the date they are due. No late submissions will be accepted. Students must account for technical glitches. In case of canvas issues, assignments must be submitted as email attachment to the instructor within the deadline. Should there be an extreme case of outage, any requests for make-up (assignments, exams, etc.) due to technical issues should be accompanied by the ticket number received from the UF Computing Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem and you must have raised the ticket well ahead of the deadline (at least 24h). You should email your instructor within 24 hours of the technical difficulty if you wish to request make-up (with the ticket details).

Health and Wellness

- **U Matter, We Care:** If you or someone you know is in distress, please email umatter@ufl.edu, call 352-392-1575, or visit [U Matter We Care](#). to refer or report a concern, and a team member will reach out to the student in distress.
- **Counseling and Wellness Center:** Visit the [UF Counseling & Wellness Center](#). website or call 352-392-1575 for information on crisis services and non-crisis services.
- **Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need or visit the [UF Student Health Care Center](#) website.

- **University Police Department:** Visit the [UF Police Department](#) website or call 352-392-1111 (or 9-1-1 for emergencies).
- **UF Health Shands Emergency Room/Trauma Center:** For immediate medical care in Gainesville, call 352-733-0111, or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; Visit the [UF Health Shands Emergency Room/Trauma Center](#) website.

Academic and Student Support

- **Career Connections Center:** For career assistance and counseling services, visit the [UF Career Connections Center](#) website or call 352-392-1601.
- **Library Support:** For various ways to receive assistance concerning using the libraries or finding resources, visit the [UF George A. Smathers Libraries Ask-A-Librarian](#) website.
- **Teaching Center:** For general study skills and tutoring, visit the [UF Teaching Center](#) website or call 352-392-2010.
- **Writing Studio:** For help with brainstorming, formatting, and writing papers, visit the [University Writing Program Writing Studio](#) website or call 352-846-1138.

Course Evaluations

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 on the GatorEvals [Providing Constructive Feedback](#) FAQ page. 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 the [GatorEvals](#) website. Summaries of course evaluation results are available to students on the [GatorEvals Public Results](#) page. More information about UF's course evaluation system can be found at the [GatorEvals Faculty Evaluations](#) website.

Tips for Success

Taking a course online can be a lot of fun! Here are some tips that will help you get the most of this course while taking full advantage of the online format:

- Schedule "class times" for yourself. It is important to do the coursework on time each week. You will receive a reduction in points for work that is turned in late!
- Read ALL of the material contained on this site. There is a lot of helpful information that can save you time and help you meet the objectives of the course.

- Print out the Course Summary located in the Course Syllabus and check things off as you go.
- Take full advantage of the online discussion boards. Ask for help or clarification of the material if you need it.
- Do not wait to ask questions! Waiting to ask a question might cause you to miss a due date.
- Do your work well before the due dates. Sometimes things happen. If your computer goes down when you are trying to submit an assignment, you'll need time to troubleshoot the problem.
- To be extra safe, back up your work to an external hard drive, thumb drive, or through a cloud service.

Privacy and Accessibility Policies

For information about the privacy policies of the tools used in this course, see the links below:

- Adobe
 - [Adobe Privacy Policy.](#)
 - [Adobe Accessibility.](#)
- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Microsoft
 - [Microsoft Privacy Policy.](#)
 - [Microsoft Accessibility.](#)
- Sonic Foundry (Mediasite Streaming Video Player)
 - [Sonic Foundry Privacy Policy.](#)
 - [Sonic Foundry Accessibility.](#) (PDF)
- YouTube (Google)
 - [YouTube \(Google\) Privacy Policy.](#)
 - [YouTube \(Google\) Accessibility.](#)

- Zoom
 - [Zoom Privacy Policy.](#)
 - [Zoom Accessibility.](#)

Netiquette and Communication Courtesy

It is important to recognize that the online classroom is, in fact, a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette.

Security

Remember that your password is the only thing protecting you from pranks or more serious harm.

- Don't share your password with anyone.
- Change your password if you think someone else might know it.
- Always log out when you are finished using the system.

General Guidelines

When communicating online, you should always:

- Treat the instructor with respect, even via email or in any other online communication.
- Always use your professor's proper title: Dr. or Prof., or if you are unsure use Mr. or Ms.
- Unless specifically invited, don't refer to a professor by their first name.
- Use clear and concise language.
- Remember that all college-level communication should have correct spelling and grammar.
- Avoid slang terms such as "wassup?" and texting abbreviations such as "u" instead of "you."
- Use standard fonts such as Times New Roman and use a size 12- or 14-point font.
- Avoid using the caps lock feature AS IT CAN BE INTERPRETED AS YELLING.

- Limit and possibly avoid the use of emoticons like :).
- Be cautious when using humor or sarcasm as the tone is sometimes lost in an email or discussion post and your message might be taken seriously or be construed as being offensive.
- Be careful with personal information (both yours and others).
- Do not send confidential information via email.

Email

Please check the syllabus for the answer to your question. Most often your questions will be answered here. In case the syllabus document does not answer your question(s), only then must you reach out to your teaching assistant or your instructor via email.

When you send an email to your instructor, teaching assistant, or classmates, you should:

- Use a descriptive subject line.
- Be brief.
- Avoid attachments unless you are sure your recipients can open them.
- Avoid HTML in favor of plain text.
- Sign your message with your name and return email address.
- Think before you send the email to more than one person. Does everyone really need to see your message?
- Be sure you REALLY want everyone to receive your response when you click, "Reply All."
- Be sure that the message author intended for the information to be passed along before you click the "Forward" button.

Discussion Boards

When posting on the discussion board in your online class, you should:

- Check to see if anyone already asked your question and received a reply before posting to the discussion board.
- Remember your manners and say please and thank you when asking something of your classmates or instructor.
- Be open-minded.

- If you ask a question and many people respond, summarize all posts for the benefit of the class.
- When posting:
 - Make posts that are on-topic and within the scope of the course material.
 - Be sure to read all messages in a thread before replying.
 - Be as brief as possible while still making a thorough comment.
 - Don't repeat someone else's post without adding something of your own to it.
 - Take your posts seriously. Review and edit your posts before sending them.
 - Avoid short, generic replies such as, "I agree." You should include why you agree or add to the previous point.
 - If you refer to something that was said in an earlier post, quote a few key lines so readers do not have to go back and figure out which post you are referring to.
 - Always give proper credit when referencing or quoting another source.
 - If you reply to a classmate's question, make sure your answer is correct, don't guess.
 - Always be respectful of others' opinions even when they differ from your own.
 - When you disagree with someone, you should express your differing opinion in a respectful, non-critical way.
 - Do not make personal or insulting remarks.
 - Do not write anything sarcastic or angry, it always backfires.
 - Do not type in ALL CAPS, if you do IT WILL LOOK LIKE YOU ARE YELLING.

Class Schedule

Week of	Module Information	Specific Due Dates (21:00h)
12th Jan 2026	<i>Orientation</i>	
	Last day to drop the course	16th Jan 2026
	Orientation Quiz (Multiple attempts - no points towards grade - mandatory)	18th Jan 2026
	Orientation Discussion (No points towards grade - mandatory)	18th Jan 2026
19th Jan 2026	<i>Introduction to Invertebrates</i>	
	Module 1 Quiz	25th Jan 2026
	Module 1 Discussion (post and response)	25th Jan 2026
	Graduate students NEM 5004c Project 2 (Review article) Topics Open	19th Jan 2026
26th Jan 2026	<i>Nematode Ecology</i>	
	Graduate students NEM 5004c Project 2 (Review article) Topics Confirmation	26th Jan 2026
	Module 2 Quiz	01st Feb 2026
	Module 2 Discussion (post and response)	01st Feb 2026
02nd Feb 2026	<i>Nematode Morphology and Function (Part 1)</i>	
	Module 3 Quiz	08th Feb 2026
	Module 3 Discussion (post and response)	08th Feb 2026
09th Feb 2026	<i>Nematode Morphology and Function (Part 2)</i>	
	Module 4 Quiz	15th Feb 2026
	Module 4 Discussion (post and response)	15th Feb 2026
16th Feb 2026	<i>Nematode Morphology and Function (Part 3)</i>	
	Module 5 Quiz	22nd Feb 2026
	Module 5 Discussion (post and response)	22nd Feb 2026
23rd Feb 2026	<i>History and Nematode Survival</i>	
	Module 6 Quiz	01st Mar 2026
	Module 6 Discussion (post and response)	01st Mar 2026

02nd Mar 2026	<i>Nematode Classification</i>	
	Module 7 Quiz	08th Mar 2026
	Module 7 Discussion (post and response)	08th Mar 2026
	Infographic/Podcast Assignment	08th Mar 2026
09th Mar 2026	<i>Nematode Symbiotic Associations</i>	
	Module 8 Quiz	13th Mar 2026
	Module 8 Discussion (post and response)	13th Mar 2026
16th Mar 2026	~SPRING BREAK~	
23rd Mar 2026	<i>Nematode-Insect Associations</i>	
	Module 9 Quiz	29th Mar 2026
	Module 9 Discussion (post and response)	29th Mar 2026
	Project 2 - iSearch paper (NEM 3002) and review article in JON format (NEM 5004c)	29th Mar 2026
30th Mar 2026	<i>Nematode Parasites of Vertebrates</i>	
	Module 10 Quiz	05th Apr 2026
	Module 10 Discussion (post and response)	05th Apr 2026
06th Apr 2026	<i>Nematode Plant Parasites</i>	
	Module 12 Quiz	12th Apr 2026
	Module 12 Discussion (post and response)	12th Apr 2026
13th Apr 2026	<i>Control of Nematode Plant Parasites</i>	
	Module 13 Quiz	19th Apr 2026
	Module 13 Discussion (post and response)	19th Apr 2026
20th Apr 2026	<i>Caenorhabditis and the Nobel Prize</i>	
	Final Cumulative Exam (both NEM 3002 and NEM 5004c) opens	20th Apr 2026
	Final Cumulative Exam (both NEM 3002 and NEM 5004c) DUE	26th Apr 2026