

SYLLABUS

(revised Spring 2018)

PRINCIPLES OF NEMATOLOGY

NEM3002 3credits

Spring 2018

Classroom: Distance Education; Online

"In short, if all the matter in the universe except the nematodes were swept away, our world would still be dimly recognizable, and if, as disembodied spirits, we could then investigate it, we should find its mountains, hills, vales, rivers, lakes, and oceans represented by a film of nematodes."

Nathan Cobb ,1915; Father of Nematology

INSTRUCTOR

Dr. Peter DiGennaro, Assistant Professor of Molecular Nematology
Dept. of Entomology and Nematology
Steinmetz Hall RM3108
1881 Natural Area Drive
Gainesville FL, 32611



CONTACT

PH 325-273-3959
pdigennaro@ufl.edu

**Please use the email function in Canvas to communicate with the instructor, except in extreme emergencies.*

OFFICE HOURS: By Appointment

WHY TAKE THIS COURSE?

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.

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
-  Nematodes often complex life histories
-  The varied and critical roles that nematodes play in ecology and our world
-  Aspects of the management of parasitic nematodes
-  History of nematode discovery

ABOUT THE COURSE

This is a distance education (DE) course offered via the University of Florida E-learning system (Canvas) at **elearning.ufl.edu**. The course materials include narrated lectures, written lecture transcripts, instructive and educational videos, virtual microscopes for exploring nematodes behavior and morphology (co-developed by Drs. Jim Baldwin and Paul De Ley at the University of California at Riverside), and readings are organized into 13 lesson modules are available online through the University of Florida E-learning system for the class. In accordance with the copyright law of the United States (Title 17, United States Code) none of the materials in the course may be "used for any purpose other than private study, scholarship, or research". E-learning technical support can be found at 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu and <https://lss.at.ufl.edu/help.shtml>

NO REQUIRED TEXTBOOK

Carl Zimmer's "Parasite Rex: Inside the bizarre world of nature's most dangerous creatures" is heavily cited for several lessons, and is available to be checked out from the Department of Entomology and Nematology (for on-campus students only) on a first come, first served basis. The book can also be purchased used or new through Amazon.com for between \$4-13 and is available as an e-book for about \$11. The book is excellent, but not required reading. Those that check the book out must return it before the end of the class in order to receive a final grade. Required and recommended readings are part of each lesson and supplied online.

COURSE OUTLINE

WEEK	DATE	ACTIVITY	ASSIGNMENT
1	Jan 6 2017	Sign-into e-learning (Canvas) Module and Lecture 1 Introduction to invertebrates	Quiz 1
2	Jan 13 2017	Module and Lecture 1 continued Introduction to invertebrates	Quiz 1 (continued) Due 10 AM on 1/18/16
3	Jan 20 2017	Module and Lecture 2 Nematode Ecology	Quiz 2 Due 10 AM on 1/25/16
4	Jan 27 2017	Module and Lecture 3 Nematode Morphology & Function (1)	Quiz 3 Due 10 AM on 2/01/16
5	Feb 4 2017	Module and Lecture 4 Nematode Morphology & Function (2)	Quiz 4 Due 10 AM on 2/08/16
6	Feb 11 2017	Module and Lecture 5 Nematode Morphology & Function (3)	Quiz 5 Due 10 AM on 2/15/16
7	Feb 18 2017	Module and Lecture 6 History & Nematode Survival	Quiz 6 Due 10 AM on 2/22/16
8	Feb 25 2017	MIDTERM EXAM Modules 1-6 Module and Lecture 7 Classification	MIDTERM Feb22-26 2016 Start Quiz 7
9	March 1 2017	Spring Break (Feb 27-Mar 5) Module and Lecture 8 Nematode Symbiotic Associations	
10	March 8 2017	Modules and Lectures 7 & 8 Classification Nematode Symbiotic Associations	Finish Quiz 7 Due 10 AM on 3/14/16 Project due 10 AM on 3/14/16 (no quiz for Lecture 8)
11	March 15 2017	Module and Lecture 9 Nematode Associates/Parasites of Invertebrates	Quiz 8 Due 10 AM on 3/21/16
12	March 22 2017	Module and Lecture 10 Nematode Parasites of Vertebrates	Quiz 9 Due 10 AM on 3/28/16
13	March 29 2017	Module and Lecture 11 Nematode Plant Parasites	Quiz 10 Due 10 AM on 4/04/16
14	April 5 2017	Module and Lecture 12 Control of Nematode Plant Parasites	Quiz 11 Due 10 AM on 4/11/16
15	April 12 2017	Module and Lecture 13 <i>Caenorhabditis</i> and the Nobel Prize	REVIEW Group Project due 4/18/16
16	April 19-26 2017	FINAL EXAM	All Modules

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with [university policies](#).

LEARNING MODULES AND WEEKLY LESSONS

In the “**Modules**” section of Canvas e-learning you will find the detailed organization of this course. It is composed of thirteen lesson modules, each containing the specific learning materials for that module. In addition to the; 1) narrated lecture, 2) transcript of the lecture, and 3) reading materials for each module, there are sometimes other learning materials such as videos, or other items or activities to help you learn the content and independently explore the information and ideas presented. In addition, there are non-cumulative, open book quizzes for each module, unless noted that are located in the “**Assignments**” section (on the left bar). Also, a midterm and final exam which summarize your learning for pre-determined sets of modules are given.

CLASS PROJECT

Your project is worth 20% of your grade and involves documenting nematodes or other microscopic worms with your smartphone with a microscope stage that will be built by your group and will be available for checkout after the first few weeks of class. This will result in the production of jpg images or YouTube videos that will be shared with your group for discussion and eventual assembly into a group PPT presentation teaching others about the different worms that you have found.

ASSESSMENT

Homework (Quizzes), a mid-term and final exam, additional readings, discussions, correspondence, and term project submission also occur via the UF E-learning system (Canvas) at elearning.ufl.edu. **There are open book quizzes due for each major lesson, unless otherwise noted and this class requires a project before the end of the semester.**

Grading Scale

95-100%	A	77-79%	C
92-94%	A-	74-76%	C-
89-91%	B+	71-73%	D+
86-88%	B	68-70%	D
83-85%	B-	65-67%	D-
80-82%	C+	<65%	E

Assignment	% of Grade
Quizzes	50
Project	20
Midterm	15
Final	15

STUDENTS WITH DISABILITIES requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

MAKE THIS COURSE BETTER

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>

HONOR PLEDGE

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 honor 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 [Honor 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.

ACADEMIC RESOURCES

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center:

<http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department

392-1111 (or 9-1-1 for emergencies). <http://www.police.ufl.edu/>

E-learning technical support

352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.

<https://lss.at.ufl.edu/help.shtml>

Career Resource Center

Reitz Union, 392-1601.

Career assistance and counseling. <http://www.crc.ufl.edu/>

Library Support

<http://cms.uflib.ufl.edu/ask>

Various ways to receive assistance with respect to using the libraries or finding resources. Policy on Course Syllabi UF, Academic Affairs, February 8, 2016

Teaching Center

Broward Hall, 392-2010 or 392-6420.

General study skills and tutoring. <http://teachingcenter.ufl.edu/>

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>

Student Complaints Campus

https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf

On-Line Students Complaints

<http://www.distance.ufl.edu/student-complaint-process>