

Syllabus for Nematode Diagnostics (NEM 6942)

This is a lab intensive course designed to equip the student with skills necessary to properly diagnose nematode problems on plants and make practical management recommendations. These skills include; 1) recognition of common symptoms, 2) competence in extraction, handling, and identifying of important groups of plant-parasitic nematodes, 3) knowledge of the major nematode pathogens and pests of key crops, and 4) knowledge of practical nematode management strategies. There are 3 hours of lab and 1 hour of lecture each week. This class is limited to 10 students.

Instructor: Dr. William Crow, 2215 Entomology and Nematology Bldg. (Building 970), PO Box 110620 Natural Area Dr., Gainesville, FL 32611, 352-273-3941, wtrc@ufl.edu.

Additional Lab Instructors: Wade Davidson castanea@ufl.edu
Dr. Alemayehu Habteweld ahabteweld@ufl.edu

Text: Illustrated key for the identification of common nematodes in Florida by Grover C. Smart and Khuong B. Nguyen. (I will give this to you).

Prerequisites: Plant Nematology (NEM 5705) taken previously or concurrently, or suitable nematology coursework or experience.

Grading: This course is a graded course. There will be a total of 100 points possible. Of these, the assignments are 45 points, the final exam is worth 45 points, attendance is worth 10 points.

Assignment 1 – We will go on a field trip, you will ask questions, make observations and take samples. You will extract nematodes from the samples and identify the plant-parasitic nematodes you find. You will write a 1-2 page report describing your findings, making your diagnosis, and comparing extraction methods.

Assignment 2 – You will identify a species of root-knot nematode using molecular methods and write a 1-2 page report of the techniques used and your findings.

Assignment 3 – You will find a plant or crop with symptoms consistent with nematode damage. You will collect appropriate samples, extract nematodes from the samples and identify the plant-parasitic nematodes you find. You will write a 1-2 page report describing your findings and making your diagnosis.

Attendance – The first unexcused absence you lose 5 points, the second you lose 10 points. With the third unexcused absence you will have missed 25% of the class and will either drop or fail the course. For excused absences, you get sick or have an emergency, contact Dr. Crow (before class time if possible) and let him know what is going on. You are expected to be in class on time. Beginning with your second tardiness, you will lose 1 point each time you are late for class.

Final Exam - The final exam is a lab practical. You may be asked to conduct a diagnosis, provide recommendations, find certain nematodes, and key out an unknown nematode.

Late Assignments: Each day an assignment is late, 10% will be taken off of the grade. If an assignment is more than three days late, a zero will be given for the assignment.

Grading scale: $\geq 95 = A$; $94 \geq 90 = A-$; $89 \geq 87 = B+$; $86 \geq 83 = B$; $82 \geq 80 = B-$; $79 \geq 77 = C+$; $76 \geq 73 = C$; $72 \geq 70 = C-$; $69 \geq 67 = D+$; $63 \geq 63 = D$; $62 \geq 60 = D-$; $< 60 = E$.

Fall 2022 Schedule: Classes will be in room ENY 2218, Friday periods 6-9 from 12:50-4:55.

Date	Lecture	Lab
Class 1	Nematode i.d. basics	Work with keys and microscopes
Class 2	Sampling theory	Sting, Lance, Awl, Dagger
Class 3	Field Trip	Field Trip
Class 4	Extraction	Extraction exercise
Class 5	Molecular i.d.	Molecular i.d.
Class 6	None	Molecular i.d.
Class 7	Miscellaneous sedentary endoparasites	Cyst, Reniform, Citrus
Class 8	Nematode-disease interactions	Root-knot nematode eggs and inoculation
Class 9	Thresholds	Lesion, Burrowing, etc.
Class 10	Diagnosis and Management	Criconematides, spiral, stubby-root
Class 11	Foliar, stem, seed nematodes	Foliar nematodes
Class 12	Review	Microscope review
Final Exam		

Internet and Email:

I will assign reading and reference materials to you by email. All assignments must be submitted as email attachments in Word or pdf. I will not accept hard copies. If you use an email address different from your gatorlink as your primary email you need to provide it to me. It is your job to check your email regularly!

Grades and Grade Points: For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Attendance and Make-Up Work: 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/>.

Online Course Evaluation Process: 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/>.

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>.

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.

Services 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 0001 Reid Hall, 352-392-8565, <https://disability.ufl.edu/> .

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, 3190 Radio Road, 352-392-1575, www.counseling.ufl.edu Counseling Services Groups and Workshops Outreach and Consultation Self-Help Library Wellness Coaching
- U Matter We Care, www.umatter.ufl.edu/ .
- Career Connections Center, First Floor JWRU, 392-1601, <https://career.ufl.edu/>.
Student Complaints:
- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/>.
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