

Syllabus Fall 2016 - Biology 336: Parasitology

Instructor: Dr. Isaure de Buron **Office hours:** by appointment (please email)
Office: Off campus (Ft Johnson) **Phone:** 953-3615 **E-mail:** deburoni@cofc.edu
Lectures: HWWE 305; T and R: 9:55-11:10 am
Laboratory HWWE 208: R (L01) 11:30 am 2:30 pm or R (L02) 2:30-5:30 pm

Textbook: Recommended: "Foundations of Parasitology" by L.S. Roberts and J. Janovy Jr., McGraw Hill. 9th ed.

Laboratory: No manual is needed. Handouts are posted on OAKS – Please print them prior to coming to class or bring your computer to lab. You will need a three-ring binder with **plain white** paper for drawing. Because of the nature of the laboratory exercises, **no make-up labs can be given. Students are responsible for all materials presented during labs missed.** Office hours are not to be used for making-up labs. Please note that depending on availability of material, the schedule might shift. You will be made aware of changes in class before lab. **The safety policy stated in your manual will be strictly enforced.** Come to lab. prepared.

Course description: Ecology, life history, morphology, pathogenicity, and control of parasites of vertebrates and invertebrates. Emphasis is placed on the social and economic impacts of parasitism using parasites of medical and veterinary importance. Laboratory covers both classical and modern techniques currently used in the study of parasites.

Objectives: This course will initiate students to the major aspects of both parasitology and parasitism by studying what parasites are, what they do, what makes them so successful, and what their roles are in ecosystems.

Testing: Lecture tests, and the final examination will be a combination of short essays, multiple choice, fill-in the blanks, short answers, drawings, and labeling. The final examination will be cumulative. The lowest short test grade (including a zero) will be dropped. Short tests will last 20 min and will start at the beginning of class.

The laboratory test will involve the identification of specimens, labeling and drawings, and the demonstration of knowledge of topics covered in the laboratory. Presentations will be 5 min PowerPoint presentations about a primary literature paper the student will select from among a list provided by the instructor. Paper selection will be on a first-come first-serve basis. Independent research project reports will be in the form of a flow chart to emphasize the modern approach to parasite identification and the importance of criteria specific to the study of parasites. Details about expectations for presentations and independent projects will be provided in lab.

You are expected to do all work in accordance with the principles of the Honor Code
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Cell phones and other electronic devices must be turned off when in class and taking tests. No hats when taking tests. No eating, chewing, or drinking in the laboratory. NO TEXTING in class or laboratory!

Grading:

A-: 90 – 93 %	A: 94 - 100 %	
B- : 80 - 83%	B: 80– 86 %	B+: 87 - 89 %
C-: 70 – 73 %	C: 74 - 76%	C+: 77- 79 %
D-: 60 – 63 %	D: 64 - 66%	D+: 67 - 69%
F: < 60 %		

Attendance: Attendance in lectures and in laboratories is **mandatory. Missing 3 laboratories will result in a WA grade (which calculates as an F). Students are responsible for all material and announcements made in class and laboratory.** These announcements may include changes in the course syllabus, material to review for examinations, and examination dates. **Written proof verifying an acceptable reason for an excused absence will be required** before being excused from attending a laboratory session or taking a test. Quizzes and tests missed for non-excused absences will be graded zero.

DATE	LECTURE TOPIC	LABORATORY [exercise #]
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Basic Concepts in Parasitism

Jan	7	The basics of parasitism	
	12, 14	The parasite 'to do' list Overview of parasite life cycles	[1] Symbiosis [2] Compound microscope calibration
	19, 21	Adaptations to parasitism - Arms race Host defense and Parasite evasion	[3] Dispersal forms
	26, 28	Infection vs disease - Pathogenesis of parasitic infections Therapeutics, control, and associated challenges	[5] Parasite ecology: an application of quantitative descriptors

Major parasite diversity, ecology and epidemiology

Feb	2, 4	T: short test 1- Diplomonads Kinetoplastids	[7] Parasite identification: use of a dichotomous key Dead line to choose a paper for presentation – Theme: so many parasites, so little time
	9, 11	Amebae Apicomplexans: Malaria agents	[9] Parasite identification: Use of molecular tools
	16, 18	Apicomplexans: Coccidians	[8]: 'Protists'
	23, 25	T: short test 2- Digeneans: Liver and intestinal flukes	IP theme: understand challenges in the study of parasite diversity IP 1- Host dissection- collection of parasites
March	1, 3	T: short test 3- Digeneans: Blood flukes	IP 2: Morphological study + DNA isolation
	8, 10	<i>Spring break - No class</i>	
	15, 17	Monogeneans - Cestodes	Presentations
	22, 24	T: short test 4 - Cestodes cont'	[11] Platyhelminthes
	29, 31	Soil transmitted nematodes, the sushi worm, and the worm who wanted to be a virus	[14] Nematodes
April	5, 7	T: short test 5 - Filarial nematodes	IP3: Synthesis – Literature

Some current debates: Parasites and conservation biology

	12, 14	Parasites as indicators of environmental health Parasites and biological invasions	Lab test
	19	Can parasites be beneficial? Dead line for lab Independent Project report	

Friday April 22 Reading Day

April 26 T: 8:00-11:00 am - Final examination (comprehensive)

Grading:

Short test: 10% each (lowest dropped)= 40% total
Final test: 35 % cumulative

Presentation: 5%
Lab test: 10 %
Independent project + paper: 10%