

Temple University, Philadelphia PA.

BIOLOGY 3243: PARASITOLOGY

"In spite of the fact that parasites represent more than half of all living species of plants and animals, their role in the evolution of life on earth has been substantially underestimated." – P.W. Price, 1980

General Course Information:

Instructor: A.T. Van Kuren
Email: avankuren@temple.edu (preferred method of contact)
Please title all emails with your name and Bio 3243 to assure a response

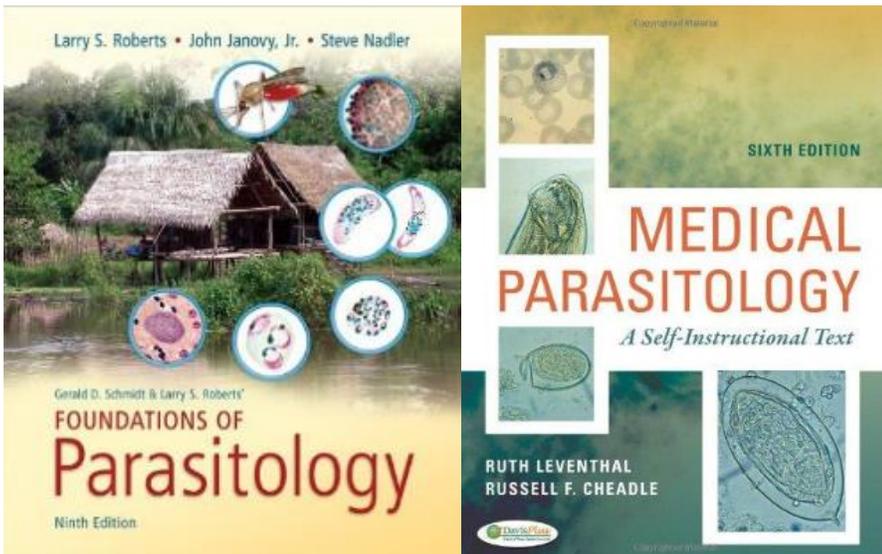
Office / Office Hours: By Appointment
Rooms: Biology-Life Science rm. 342 (Lec.) & Biology-Life Science rm. 125 (Lab.)
Open / Close Dates: Summer II, June 27th – August 8th
Lecture Times: MMF 11:50am-1:50pm
Laboratory Times: MW 8:40am-11:40am
Credit Hours: 4.00 credits
Prerequisites: Bio-1111 Introduction to Biology I
Bio-2112 Introduction to Biology II

Instructional Materials:

All materials are pictured below.

Lecture Textbook: **Foundations of Parasitology**, Roberts, L. Schmidt, G.D. *et al.* 2012, 9th Edition. McGraw-Hill Education, New York. ISBN-10: 0073524190 / ISBN-13: 978-0073524191. Available in the Temple University Bookstore.

Laboratory Manual: **Medical Parasitology: A Self-Instructional Text**, Leventhal, Ruth, *et al.* 2012, 6th Edition. F.A. Davis Company, Philadelphia. ISBN-10: 080362543 / ISBN 13: 9780803625433. Available in the Temple University Bookstore.



Course Description:

Biology 3243: Parasitology will introduce students to the basic concepts of parasitology, including types of animal associations, adaptations to parasitic mode of life, and evolution of parasitism. Parasite life cycles (infection, transmission, pathology, symptoms, diagnosis, and treatment) and control of medically and economically important parasites are the main emphasis of this course. Includes a laboratory.

Key Course Objectives: With the successful completion of this course, the student will:

1. Demonstrate an awareness of the diversity of parasites that infect humans and domestic animals. Give the names of the taxonomic group (common and scientific) and that of the genera and species covered.
2. Demonstrate knowledge of the relationships between parasites and hosts.
3. Recognize significant morphological characteristics for identification of parasites to taxonomic group and the life history stage. Present the life history of the parasitic groups as well as that of genera or species including:
 - a. The infective agent for each host and their means of invasion.
 - b. Each host in the life cycle and type of development, multiplication, etc., which occurs in each host.
 - c. Movement routes and sites of development within hosts.
 - d. Free living stages.
4. Demonstrate knowledge of the effect of parasites on human populations.
5. Demonstrate knowledge of the mechanisms of parasitic infections.
6. Demonstrate knowledge of the medical implications of parasitic infections in humans. Understand the treatment, prevention, and control of the parasitic genera and species presented.
7. Understand the evolution of parasitic groups as well as other aspects of the parasites discussed.

Being Successful in Bio 3243:

Students in the course can increase their understanding of the impact of parasites on today's world by relating topics discussed in class with real world matters. With over one million confirmed human deaths a year from parasitic infections it isn't difficult to find relation between course material and modern day scourges. Students will develop their ability to examine biological data and extract trends and insights about cause and effect. This course, like most modern biology courses, requires students to read a lot of material in advance of each class. Students are expected to attend the lectures, take notes and pay attention. Students should also note that some of the material mentioned in the lectures will not specifically be found in the texts but they are responsible for this material anyway if presented during lecture. The best, easiest, and really the only successful approach to doing well in this class includes carefully reading and studying all the presented material (*text or otherwise*), coming to class regularly, taking notes, paying close attention, attending all scheduled labs, completing all quizzes, and where appropriate, participating in the discussions.

Preparation & Responsibilities:

Preparation for lectures and exams requires that you read all the chapters listed. Certain subtopics will not be covered in the exams or lectures and will be pointed out to you during lectures and in the course schedule. The general rule of thumb here is that textbook sections not discussed in lecture or the PowerPoints, will not be included on exams.

You are strongly advised, to ideally read ahead, preferably to review current material between lectures, and to at least minimally keep up with the course. There is too much material and the pace of our summer schedule will soon make it impossible to "cram" last minute for any exams or quizzes.

Blackboard:

Course announcements, lecture notes (PowerPoints), quizzes, supplemental information will be posted online using Blackboard. When available, lecture notes will be posted shortly before the lecture. Updates to this syllabus may be posted; please check periodically. If you have not used Blackboard previously, ask a fellow student to spend a few minutes helping you or go to the Tech Center help desk. You will also receive important course announcements via your Temple email account. If you do not use your Temple email account, you need to activate it. If you have forgotten your password, you need to go to Computing Services and have them assign you a new password.

Drop/Add & Withdraw Deadlines:

See the undergraduate bulletin for information about withdrawing from the course.

1. **Last day to drop/add** (tuition refund available): **Monday July 3rd, 2017**
2. **Last day to withdraw** (no refund): **Tuesday July 18th, 2017**. Students who have previously withdrawn from the same course may not withdraw. Those who have already withdrawn from several other courses should check their eligibility to withdraw.

Attendance:

In a course of this nature (and pace) it's imperative that students attend all classes and laboratory sessions in order to obtain maximum benefit from the material being offered. Questions on the exams are taken from both laboratory and lecture. You are expected to remain in class and lab until you are dismissed. Attendance will be taken at the beginning of every lecture and laboratory period. Late arrivals, to either, can be counted as absence, and all absences count. **Lecture and laboratory attendance is mandatory.** During the semester more than one (1) unexcused laboratory absence may result in significant grade reduction. Our labs will only run for one day, if you miss a lab there is no way to make it up. Regardless of the reason for any absences, it is the responsibility of the student to obtain class notes and become informed concerning class activities, exams, and laboratory information from your peers or the website. If you do not understand these policies, please ask.

Disabilities:

Any student who needs accommodation in lab and lecture because of a disability should contact the course Instructor privately to discuss the specific situation as soon as possible. Documentation from the DRS office is required. **The Office of Disability Resources and Services (215-204-1280) in Ritter Annex 100** can coordinate reasonable accommodations for students with documented disabilities. Student must see them, get tested, and register well in advance of exams. In addition, new rules at the DRS require advanced notice by several days for exam accommodations. It is the responsibility of the student to adhere to the DRS schedule for registration and paperwork when requesting an exam accommodation.

Grading Policy:

The lecture grade and the laboratory grade are combined to determine your overall grade for the course. The lecture component for the course is worth 70% and the laboratory component is worth 30%. **Additional details on laboratory grading will be presented in laboratory and posted on Blackboard under the laboratory tab.**

No letter grades will be given on the quizzes, tests and assignments. Final letter grades will be issued at the end of class. Students can expect letter grades based on the following 100 point scale.

Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade
93-100	A	87-89	B+	80-82	B-	70-74	C	58-64	D
90-92	A-	83-86	B	75-79	C+	65-69	C-	57-0	F

While scores above are presented as whole numbers actual scores will be calculated using decimal points rounded to the nearest tenths. Students who are close to a border grade (*as defined below in the Borderline Case section*) will have special consideration given to their grades.

Meeting with Your Instructor:

All students are encouraged to meet one-on-one with their lecture instructor during the semester, particularly during office hours. The goal of this meeting is to discuss your study habits, review exams and make suggestions on how to become a better exam taker.

Early Performance Evaluations:

Official early performance evaluations will be posted based on available information on dates determined by the semester in which the course is being offered.

Electronic Devices:

1. **Cell phones** are prohibited during lecture.
2. **Laptops** are prohibited during class without advanced permission by the Instructor. These are generally distracting. You will be asked to leave and will not receive credit for the day if you have them on during lecture and are caught using social media (*Facebook, Twitter, etc.*).
3. **Audio recording devices** are permitted with permission, but the Bio 3243 faculty take no responsibility for lost or damaged devices. If you place a recording device at the front of the lecture hall to record a lecture it is your responsibility to retrieve it after the lecture is complete.
4. **All other electronic devices** (*i.e. Tablets, Surfaces, IPods, IPads, etc.*) are prohibited unless given advanced permission by the course Instructor.

Borderline-Case Policy:

At the end of the semester the lecture instructor reserves the right to pay special attention to “borderline-cases”. A borderline-case is any student whose final grades falls less than a predetermined percentage away from a higher letter grade (i.e. C- to a C), this is usually 0.05% but not guaranteed every semester. Once the borderline student has been identified the Bio 3243 faculty will evaluate all non-graded assignments associated with the course, this includes but is not limited to: non-graded quizzes, supplemental material completion, lecture attendance, office hour visits. The criteria for determining assistance is predetermined and different from semester-to-semester. Some students will qualify and be granted a higher letter grade and some will not. These decisions are final and not open for debate.

Honesty and Civility:

You must abide by Temple's Code of Conduct (see <http://www.temple.edu/assistance/udc/coc.htm>), which prohibits:

1. Academic dishonesty and impropriety, including plagiarism and academic cheating.
2. Interfering or attempting to interfere with or disrupting the conduct of classes or any other normal or regular activities of the University.

Don't even try to cheat. Avoid all appearance of cheating. We have a "**zero tolerance**" policy. The Temple Honor code, which you will sign in the form of the student contract before you take all of the exams in the course, provides disciplinary action for cheating which may include expulsion from the University.

Review the Temple University Policy on Plagiarism and Academic Cheating:

http://www.temple.edu/bulletin/Responsibilities_rights/responsibilities/responsibilities.shtm you are responsible for following this policy for all assignments, tests and exams; students who do not will be penalized. The penalty will vary with the nature of the offense, and will involve, as necessary, the lab coordinator and lecture instructor, the department, and the college. **Given the plethora of electronic devices that can enable the circumventing of exam security, all electronic devices must be off and inside an enclosed item such as a backpack. This includes cell phones, tablets, laptops, and electronic watches such as the Apple watch or similar such devices must be removed for the duration of the exam.**

The following guidelines will minimize disruption of your fellow students during lectures (after the Chronicle of Higher Education *March 27, 1998, p. A12*)

Avoid entering lectures late. If you are late, enter as quietly as possible. Find a seat near the back or sides, do not make a scene and try to sit in the middle of row if you are late. Never enter through the doors located at the

bottom of the lecture hall, as it interrupts the lecture instructor. **Late and disruptive students may not receive any credit for attending lecture.**

Avoid eating meals in the classroom. Avoid eating meals in class. This can distract other students.

Temple' Freedom to Teach and Learn Policy:

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The University has adopted a policy on Student and Faculty Academic Rights and Responsibilities (Policy # 03.70.02) which can be accessed through the following link: http://policies.temple.edu/getdoc.asp?policy_no=03.70.02.

Disclaimer: This syllabus serves as a contract between the student and the instructor. This agreement may be changed by the instructor as deemed necessary. In good faith, both the instructor and the student agree to uphold this statement.

Schedule: Biology 3243 SU2017

Dates and materials are subject to change as is determined during the semester. Please consult Blackboard and attend lecture and laboratory regularly for any updates.

Date	Lecture - MMF 11:50am-1:50pm	Laboratory - MW 8:40am-11:40am
June Tuesday 22 nd	First Day of Summer II / NO CLASS	NO LABORATORY
June Wednesday 28 th	Introduction / Begin Protozoa	Lab 1: Introduction, Lab Safety
June Friday 30 th	Protozoa	
July Monday 3 rd	Protozoa	Lab 2: Flagellated protozoa
July Wednesday 5 th	Protozoa	Lab 3: Sarcodina & Ciliophorans
July Friday 7 th	Protozoa	
July Monday 10 th	EXAM 1 / Begin Platyhelminthes	Lab 4: Apicomplexans
July Wednesday 12 th	Platyhelminthes	Lab 5: Malaria
July Friday 14 th	Platyhelminthes	
July Monday 17 th	Platyhelminthes	Lab 6: Trematodes
July Wednesday 19 th	Platyhelminthes	Lab 7: Trematodes
July Friday 21 st	Platyhelminthes	
July Monday 24 th	EXAM 2 / Nematodes	Lab 8: Schistosomiasis
July Wednesday 26 th	Nematodes	Lab 9: Cestodes
July Friday 28 th	Nematodes	
July Monday 31 st	Nematodes	Lab 10: Nematodes
August Wednesday 2 nd	Nematodes	Lab 11: Nematodes
August Friday 4 th	Nematodes / Review	
August Monday 7 th	COMPREHENSIVE FINAL EXAM	Lab 12: LAB PRACTICAL
August Wednesday 8 th	Last Day of Summer II / NO CLASS	NO LABORATORY

****Do to the speed of a summer course, and the unique situations that come with teaching a new course, we will take a fluid approach to our schedule. Deadlines, such as exams, will be set and a chronological approach will take precedence to fulfillment.***

Protozoa selective coverage, ideally, will include material found in chapters: 4, 5, 6, 7, 8, 9, and 10

Platyhelminthes selective coverage, ideally, will include material found in chapters: 13, 15, 16, 17, 18, 19, 20, and 21

Nematodes selective coverage, ideally, will include material found in chapters: 22, 23, 24, 25, 26, 27, 28, 29, and 30

Additional parasites may be covered not found in these chapters, or classified under these taxonomic classifications