BIOLOGY 342: PARASITOLOGY
COURSE SYLLABUS: SPRING, 2013

INSTRUCTOR INFORMATION

Dr. Susan Bandoni Muench
Office: ISC 257
Phone: 245-5309
e-mail: bandoni@geneseo.edu
Office hours: Tuesdays and Fridays, 10:00-12:00 and by appointment.

COURSE DESCRIPTION

In this course, we will examine parasites and parasitism, emphasizing the influence of parasites on the ecology and evolution of free-living species, and the role of parasites in global public health.

LEARNING OUTCOMES

At the end of the course, students will be able to:

1. Differentiate among definitions of parasitism used by scientists with various disciplinary perspectives, and explain their choices among these definitions.
2. Demonstrate through quizzes, class activities and exams an understanding of the diversity of parasites and symbiotic associations, and the dynamic nature of symbioses.
3. Use scientific knowledge about parasites to interpret case studies and address real-life problems in Parasitology in class and during exams.
4. Explain the role of parasitism in the evolution of life on earth, and evaluate evidence for particular examples in class and on exams
5. Locate, read and evaluate literature to update knowledge of parasites and communicate the new information effectively in class discussion and on the major written assignment.
6. Select and synthesize current knowledge of a particular topic in Parasitology using the primary scientific literature, and present this knowledge to peers in a poster format.
7. Demonstrate through class discussion and on take-home assignments and on tests an understanding of social and cultural attitudes to parasites and parasitism, and their influence on scientific research.

Accommodations for persons with disabilities: SUNY Geneseo will make reasonable accommodations for persons with documented physical, emotional or learning disabilities. Students should contact the Director in the Office of Disability Services (Tabitha Buggie-Hunt, 105D Erwin) and their faculty to discuss needed accommodations as early as possible in the semester.

REQUIRED TEXTS AND MATERIALS

The text for this course is:
Bogitsh, B. L., Carter, C. E. & Thomas Oeltmann. Human Parasitology. 4th edition. Burlington, MA: Elsevier Academic Press, 2012.

Additional articles and case studies are available on MyCourses. You will need to bring copies (either electronic or paper) to class. You may need to print articles for the written assignments or print materials for some written assignments. In addition, you may wish to print lecture notes or other course materials. Please budget for these additional printing costs.

EVALUATION	
Exams (4)	300
Poster presentation	100
Reading quizzes	50
Short writing assignments	50
Total	**500**

ADDITIONAL INFORMATION ABOUT EVALUATION

Reading quizzes: These are short quizzes covering the assigned readings in the textbook. They will given on or before the first day we address a particular group of parasites, usually on a Tuesday. Quizzes may be either online or in class; watch for updates each week. Their role is to ensure that everyone has a common foundation of knowledge that will allow us to tackle more challenging and authentic problems in class. Your lowest 2-3 scores will be dropped.

Short writing assignments: These are short writing assignments about the articles assigned for Thursdays, and also helping you prepare for the poster presentation. Their function is to encourage you to read before class discussions, and to give you tools and approaches for the reading for the final poster project. Most are graded pass/fail, and two will be dropped. Most

Exams: Exams may include multiple choice, short answer, and short essay components, and may have a take-home component. Class activities and old exams will provide models of exam questions. Exam questions will often be application problems that require you to use information learned through the reading and in class.

Poster project: You will select a current topic relevant to your career goals or major interests, locate several articles from the primary literature, and write an analytical review of these articles in a poster format. This assignment will require you to demonstrate an understanding of ideas learned throughout the course as well as how these ideas connect to your personal interests and goals. Class activities will help you build toward this goal. A separate handout will provide instructions for this assignment.

PARASITOLOGY – SCHEDULE OF TOPICS	
Tues.	Thurs.
1/22 Introduction -- Video	1/24 Introductions. Three views of parasites. Definitions of parasitism. Introduction to platyhelminths, trematodes.
1/29 Blood flukes	1/31 Parasitism: defining harm. Host parasite coevolution.
2/5 Visceral flukes	2/7 Parasites, commensals and mutualists. Introduction to tapworms.
2/12 Intestinal tapeworms	2/14 **EXAM 1a (Symbiosis and parasitism)**
2/19 Extraintestinal tapeworms	2/21 Cospeciation. Introduction to Nematodes.
2/26 Intestinal Nematodes	2/28 Intestinal Nematodes
3/5 Blood and Tissue Nematodes	3/7 Alteration of host behavior
3/12 **EXAM 2 (Helminths)**	3/14 Introduction to Parasitic Protozoa. Parasites and mate choice
3/19, 3/21 SPRING BREAK – NO CLASSES	
3/26 Amebas	3/28 Evolution (evolution of sex and sexually transmitted diseases)
4/2 Flagellates	4/4 Evolution Evolution of virulence
4/9 Hemoflagellates/Kinetoplastids	4/11 Hemoflagellages/Kinetoplastids (coevolution and arms races)
4/16 GREAT Day	4/18 **EXAM 1b (Ecology and Evolution of Parasites)**
4/23 Malaria	4/25 Malaria

4/30 Other Apicomplexans	5/2 Other apicomplexans
5/7 **EXAM 3 (Protozoa)**	5/15 **Final exam time slot, 3:30-6:30 Poster session (Assignment 3)**

*reading quiz

SOME IMPORTANT POLICIES

Communication: Check your e-mail before each class in order to ensure that you receive information about any changes in the schedule. E-mail is also usually the fastest way to get in touch with me. Because I am working with hundreds of students this semester, please include your full name and the course name or number in all e-mails sent to me.

Professionalism: Your active participation in class activities contributes not only to your own learning but also to the learning of others in the class. Please plan to arrive on time and stay throughout the class. Turn off cell phones before class to avoid disrupting the class. Use laptops, cell phones and other technology only for class-related purposes during the lecture period.

Poster due date: The poster project is due during the final exam time slot. Extensions are available but only with explanation and only when arranged in advance, except in the case of emergencies that arise on the due date. Extensions may require a grade of incomplete.

Academic dishonesty: Included in this category are cheating on exams and plagiarism. Both represent serious breaches of trust and will be treated accordingly. Either may result in a substantial grade reduction for that exam or project, and you may also be required to redo the exam or project under different conditions. The incident will be reported to the Dean of Students and the Dean of the College. Plagiarism is defined here as any form of misrepresentation of the authorship or originality of your work. Plagiarism includes (but is not limited to) copying others' work directly (including internet sources), paraphrasing minimally the work of others, presenting ideas without citing the original sources, turning in a paper written by someone else or turning in the same work in more than one course. If you wish to use the same project topic for more than one class, you must clear this with both instructors first, and I will require evidence that the projects are complementary and not identical. Because academic dishonesty is defined in detail here, a claim of ignorance will not serve to excuse the behavior.

Class attendance: No points are awarded for attendance alone. However, the inherently participatory nature of the class will mean frequent absences may be problematic, as class activities do not duplicate the reading. If you miss classes, make sure that you obtain copies of notes from other students. Handouts and graded work can be obtained in office hours.

Appealing grades: Any graded work may be submitted for re-evaluation along with a written appeal. The appeal must contain a brief written explanation of your concerns, including your understanding of the question or assignment directions and why you believe your work meets the requirements of the question or assignment. Ordinarily, this should occur within one week of when the work is returned to you.

Explanation of final grades: Grades are determined using the scale presented below usually without any adjustment or curve. Helping others can only help you, and cannot hurt your grade in any way. The point distribution is as follows:

A (>93)	B+ (87-89)	B- (80-82)	C (73-76)	D (60-69)
A- (90-93)	B (83-86)	C+ (77-79)	C- (70-72)	E (<60)

FOR YOUR CONSIDERATION:

Instructional format: Transfer of information through lecture will make up only a small fraction of class time, and small group discussion or discussion with the full class will make up the rest. You <u>must</u> obtain your first exposure to new ideas outside of class through independent reading. Although many students find the class format helpful for promoting deeper understanding, some students find it difficult to adjust to the format. Please see me if you are experiencing problems putting everything together.

Working in groups: In this class, you <u>must</u> work in groups in class. You will not usually have to meet with your group outside of normal class time.

Difficult subject matter: In this course, you will see graphic images of parasites and their effects on the hosts. Discussion of the transmission of parasitic diseases will require consideration of aspects of personal hygiene and sexuality that some people may find difficult to discuss. Be aware that comfort levels and coping mechanisms vary. Maintaining an environment conducive to learning depends on treating others with respect.

Evolution: The Theory of Evolution provides the central explanatory framework for all of biology, and will be a theme running through Biology 342. I welcome the opportunity to discuss any questions or concerns you may have about evolution during office hours or individual appointments.