

**Biology 3403:001 & MC1/ 5407– Parasitology – Spring 2019**  
**Lecture M-W-F 11:00-11:50 WSB 101 (AMS 2)**  
**Lab (Alpine) M 1:00-2:50 WSB 109**  
**Lab (Midland) M 3:00-4:50 FOX 131**  
**Syllabus**

**Instructor:** Dr. Chris M. Ritzi

Office: WSB 216

Phone: 837- 8420

Email: [critzi@sulross.edu](mailto:critzi@sulross.edu)

Office hours: TR 2-4

MW 9-10

or by appt.

**MC Proctor:** Ethel Matthews

Fox 104

685-6733

[ematthews@midland.edu](mailto:ematthews@midland.edu)

TR 1-3 pm

**Class Website:** <http://sulross.blackboard.edu> and <http://faculty.sulross.edu/critzi/>

**Text:** Foundations of Parasitology. Ninth edition. Roberts, L.S., J. Janovy, Jr., and S. Nadler

**Course Description:** This course is designed to allow an exploration into the various aspects of parasitology. Emphasis will be placed on the life cycles of major parasitic organisms attacking humans and animals (wild and domestic). This course will not deal with viral or bacterial pathogens, as these are the covered by other courses in our curriculum). The following are the major objectives of the course:

1. To develop an understanding of and appreciation for the nature and evolution of parasitic associations.
2. To develop an understanding of the terminology used in parasitology.
3. To understand the ecology and life cycles of a variety of host-parasite associations.
4. To develop an understanding of the modifications (physiological, morphological, and behavioral) needed to assume a parasitic lifestyle.

**Student Learning Outcomes for Undergraduates in the Program**

The graduating biology student graduating with a BS in Biology should be able to:

- 1) The student will be able to demonstrate an understanding of basic biological concepts, including but not limited to evolution via natural selection, cell theory, and the role and function of DNA.
- 2) The student will be able to demonstrate utilization of various field techniques toward addressing scientific questions in the specific discipline. These field techniques can include, but are not limited to, plant collection and processing, various animal collection techniques, ecological surveying and sampling, and biodiversity indexing.
- 3) The student will be able to use biological instrumentation to solve biological problems using standard observational strategies.
- 4) The student will develop writing skills by summarizing and critiquing recent relevant biological literature.

**Student Learning Outcomes for Graduates in the Program**

The biology student graduating with a MS in Biology should be able to:

- 1) Understanding and implementation of scientific methodology.
- 2) Utilization of field techniques toward addressing scientific questions.
- 3) Be able to utilize statistics toward the analysis of data within the discipline.
- 4) Be able to effectively disseminate scientific findings using both written and oral communication.

**Grading:** Your grade will be assigned based on the percentage of points you get out of a total possible 900 points. (100pt lecture exams (2), final exam (200 pt), 100 pt lab exams (3), 100 pt disease report, and 100 pt attendance and participation).

**Tests:** There will be a total of 2 regular in-class exams, each worth 100 points. The final is two exams, a regular exam of material since the last test, and a comprehensive exam over the prior two exams. If you miss an exam and have a legitimate excuse, contact me within 24 hours of the test and we will arrange a make-up test. If you do not contact me within 24 hours, you will receive a zero on that exam. Graduate students will be required to complete all undergraduate course requirements, and additionally complete research question take-home exams that will assess their ability to extrapolate the information beyond the lectures.

**Attendance:** Students missing 20% of lectures (9 lectures) AND/OR labs (3 labs) shall be dropped from the class per the SRSU catalog. Any student dropped for excessive absences will receive an F for the course grade. Please notify your instructor BEFORE missing class for authorized activities, death in the family, or illness. Exams missed for any reason must be made up within one week of the originally scheduled date. REGARDLESS OF WHY AN ABSENCE OCCURS, YOU MAY BE GIVEN AN F FOR THE COURSE GRADE IF YOU ACCUMULATE NINE ABSENCES.

**Students with disabilities will be provided reasonable accommodations. If you would like to request such accommodations because of physical, mental, or learning disability, please contact the ADA Coordinator for Program Accessibility at 837-8203, FH 112.**

**Lecture courtesy:** The general rules of classroom etiquette are below.

- 1) Please do not talk to others in class while the instructor is lecturing. If you have a question, ASK THE INSTRUCTOR! That's what I'm here for.
- 2) No eating, chewing, dipping, etc.
- 3) Please turn cell phones and pagers to silent while in class. They are disruptive to the entire class, and detract from learning.
- 4) Excessive tardiness and early departure are distracting to your fellow classmates, and can negatively impact your grade.

### TENTATIVE LECTURE OUTLINE

DATE	LECTURE TOPIC	CHAPTER
Jan 23	Introduction	1
Jan 25	Host-parasite relationships	2-3
Jan 28	Host-parasite relationships (continued)	2-3
Jan 30	Host-parasite relationships (continued)	2-3
Feb 1	Parasitic Protists	4
Feb 4	Trypanosomes (continued)	5
Feb 6	Trypanosomes (continued)	5
Feb 8	<i>Leishmania</i>	6
Feb 11	Trichomonads	6
Feb 13	<i>Giardia</i>	6
Feb 15	Amebas	7
Feb 18	Amebas (continued)	7
Feb 20	Intro to Apicomplexa	8
Feb 22	Apicomplexa – Coccidia thru Microspora	9, 11
Feb 25	Apicomplexa – Coccidia thru Microspora	9, 11
Feb 27	Exam I – Chapters 1-11	
Mar 1	Platyhelminthes – Flukes	13-15
Mar 4	Platyhelminthes – Flukes (continued)	15-16

Mar 6	Platyhelminthes – Flukes (continued)	17-18
Mar 8	Platyhelminthes – Tapeworms	20
Mar 11	Platyhelminthes – Tapeworms (continued)	20-21
Mar 13	Platyhelminthes – Tapeworms (continued)	21
Mar 15	Nematoda	22
Mar 18	Spring Break – No Class	
Mar 20	Spring Break – No Class	
Mar 22	Spring Break – No Class	
Mar 25	Nematoda (continued)	22-25
Mar 27	Nematoda (continued)	22-25
Mar 29	Nematoda (continued)	26-30
Apr 1	Nematoda (continued)	26-30
Apr 3	Exam II – Chapters 13-30	
Apr 5	Other Worms (Acanthocephala thru Pentastomida)	32&35
Apr 8	Other Worms (Acanthocephala thru Pentastomida)	32&35
Apr 10	Other Worms (Acanthocephala thru Pentastomida)	32&35
Apr 12	Arthropods – Crustaceans	33
Apr 15	Arthropods – Crustaceans	34
Apr 17	Arthropods –Intro to Insects	36
Apr 19	Insecta - Lice and true bugs	36-37
Apr 22	Insecta - Lice and true bugs (continued)	36-37
Apr 24	Insecta - Lice and true bugs (continued)	36-37
Apr 26	Insecta - Fleas	38
Apr 29	Insecta – Fleas (continued)	38
May 1	Acari - Mites	41
May 3	Acari – Mites and Ticks (continued)	41
May 6	Acari – Mites and Ticks (continued)	41
May 8	Acari – Mites and Ticks (continued)	41
May 9	Dead Day	
May 14 10:15 am	Exam III/Final Exam on Tuesday– Chapters 32-41 +	

Note – This outline is subject to change for reasons of course interest, time constraint, or instructor whim. The exams will be administered on the dates given, unless material relevant for a given exam has not been covered. Under such cases, an exam may be moved a class period or two to aid in the clarity and understanding of the material.