Biology 3403– Parasitology – Spring 2025 Lecture M-W 11:00-12:15 WSB 107 (persoal computer for remote sites) Lab (Alpine) M 1:30-3:15 WSB 109 Lab (Midland & RGC - TBA or virtual) Syllabus

Instructor: Dr. Chris M. Ritzi Office: WSB 217 Phone: 837- 8420 Email: critzi@sulross.edu Office hours: M 3:30-4:30. T 3-5. W 2-5 or by appt.

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.

Marketable Skills:

- 1. Students will be able to organize, analyze, and interpret data.
- 2. Students will be proficient at using presentation software.
- 3. Students will acquire experience in managing time and meeting deadlines.
- 4. Students will gain the ability to speak effectively and write concisely about scientific topics.
- 5. Students will acquire experience and guidance in the development of professional email correspondence.

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.

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 15 | Introduction & Host-parasite relationships | 1-3 |
| Jan 20 | MLK Jr. Day - no class | 1.5 |
| Jan 20 | Parasitic Protists | 4 |
| Jan 27 | Trypanosomes (continued) | 5 |
| Jan 29 | Leishmania | 6 |
| Feb 3 | Trichomonads & Giardia | 6 |
| Feb 5 | Amebas | 7 |
| Feb 10 | Amebas (continued) | 7 |
| Feb 12 | Intro to Apicomplexa | 8 |
| Feb 17 | Apicomplexa – Coccidia thru Microspora | 9, 11 |
| Feb 19 | Exam I – Chapters 1-11 | |
| Feb 24 | Platyhelminthes – Flukes | 13-15 |
| Feb 26 | Platyhelminthes – Flukes (continued) | 15-16 |
| Mar 3 | Platyhelminthes – Tapeworms | 20 |
| Mar 5 | Platyhelminthes – Tapeworms (continued) | 20-21 |
| Mar 10 | Nematoda | 22 |
| Mar 12 | Nematoda (continued) | 22-25 |
| Mar 17 | Spring Break – No Class | |
| Mar 19 | Spring Break – No Class | |
| Mar 24 | Nematoda (continued) | 26-30 |
| Mar 26 | Nematoda (continued) | 26-30 |

| Mar 31 | | Exam II – Chapters 13-30 | |
|--------|----------|---|-------|
| Apr 2 | | Other Worms (Acanthocephala thru Pentastomida) | 32&35 |
| Apr 7 | | Other Worms (Acanthocephala thru Pentastomida) | 32&35 |
| Apr 9 | | Arthropods – Crustaceans | 33 |
| Apr 14 | | Arthropods –Intro to Insects | 36 |
| Apr 16 | | Insecta - Lice and true bugs | 36-37 |
| Apr 21 | | Insecta - Lice and true bugs (continued) | 36-37 |
| Apr 23 | | Insecta - Fleas | 38 |
| Apr 28 | | Insecta - Fleas continued | 38 |
| Apr 30 | | Acari - Mites and Ticks | 41 |
| May 1 | | Dead Day | |
| May 6 | 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.

SRSU Disability Services: Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Students seeking accessibility/accommodations services must contact Mrs. Mary Schwartze Grisham, LPC, SRSU's Accessibility Services Director at 432-837-8203 or email counseling@sulross.edu. Our office is located on the first floor of Ferguson Hall, room 112, and our mailing address is P.O. Box C122, Sul Ross State University, Alpine. Texas, 79832

SRSU Distance Education Statement: Students enrolled in distance education courses have equal access to the university's academic support services, such as library resources, online databases, and instructional technology support. For more information about accessing these resources, visit the SRSU website. Students should correspond using Sul Ross email accounts and submit online assignments through Blackboard, which requires secure login. Students enrolled in distance education courses at Sul Ross are expected to adhere to all policies pertaining to academic honesty and appropriate student conduct, as described in the student handbook. Students in web-based courses must maintain appropriate equipment and software, according to the needs and requirements of the course, as outlined on the SRSU website. Directions for filing a student complaint are located in the student handbook.

Libraries: The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires logging in with your LobolD and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

Academic Integrity: Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. Students should submit work that is their own and avoid the temptation to engage in behaviors that violate academic integrity, such as turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden. Students should also avoid using open AI sources unless permission is expressly given for an assignment or course. Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.

Classroom Climate of Respect: Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

Supportive Statement: I aim to create a learning environment for my students that supports various perspectives and experiences. I understand that the recent pandemic, economic disparity, and health concerns, or even unexpected life events may impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create a supportive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you.