SCHOOL OF AGRICULTURE

COURSE NUMBER:  AGR 430   CREDIT HOURS:  2

I.  **TITLE:**
Veterinary Parasitology

II.  **CATALOG DESCRIPTION:**
The basic concepts of parasitology including life cycles and mechanisms of
pathogenicity will be covered during lecture. The laboratory portion will
emphasize methods of identification of parasites in fecal, blood, and skin
specimens. Lecture, two hours; laboratory, four hours for a half of a semester.

Prerequisite: AGR 332, BIO 300, and 5 hours of chemistry

III.  **PURPOSE:**
Basic concepts of veterinary and human parasitology will be discussed,
including specifics of individual families, genera, and species of parasites,
which impact animal and human health. Students will be responsible for
learning names, host species, life cycles, disease manifestations, public health
implications, economic impact, and control strategies for the various organisms
discussed.

IV.  **COURSE OBJECTIVES:**
By the end of the term, students should be familiar with the various classes of
parasites, as well as, certain representative species, their pathologic and
economic effects, and methods for controlling or minimizing infection, both in
the individual animal and on a herd basis. Students should be able to identify
parasites using various methods taught in laboratory.

V.  **CONTENT OUTLINE:**
A. Parasitology lecture
   1. Protozoa
      a. Amoeba, Flagellates, and Hemosporidia
      b. Coccidia
   2. Helminths
      a. Trematodes
      b. Cestodes
      c. Nematodes
   3. Arthropods
      a. Ticks and Mites
      b. Gnats, Mosquitoes, and Flies
      c. Lice and Fleas
B. Parasitology laboratory
   1. Direct and Fecal Flotation Methods
   2. Baermann Technique
   3. Cryptosporidium Identification
   4. Modified Knott’s Procedure
   5. Ectoparasite Identification

VI. INSTRUCTIONAL ACTIVITIES:
   A. Lecture
   B. Laboratory

VII. FIELD AND CLINICAL EXPERIENCES:
Four hours of laboratory per week. All students will be required to attend Animal Health Technology Day during the spring semester. A laboratory report will be turned in worth 100 points. Students not attending AHT day must provide a written excuse for an alternative assignment or will receive a zero. Dates will be announced in class.

VIII. RESOURCES:
   A. Lecture handouts and notes and laboratory manuals and information may be found on Blackboard.
   B. ITV
   C. Essential skills booklet: Students will turn in $5 for the printing and binding of the booklet (one booklet will be used for all BVC courses). The essential skills must be successfully completed for the student to receive credit for the course. Otherwise the student will receive an “I” for the semester.
   D. Powerpoints for parasite identification
   E. Materials students should purchase and bring to class in addition to textbooks and laboratory material
      i. Simple nonprogrammable calculator
      ii. White laboratory coat
      iii. Scrubs or professional attire (can be any color as long as it matches)

Students not dressed appropriately for laboratory will be asked to leave and change and will be docked professional points

IX. GRADING PROCEDURES:
90 – 100 = A
80 – 89 = B
70 – 79 = C
60 – 69 = D
Below 60 = E

There will be three lecture exams and one or two laboratory exams during the semester worth 100 points each. Pop quizzes may be given at any time at the instructor’s discretion. Laboratory reports, professionalism and pop quizzes
will be assigned points toward the final grade. Points earned will be divided by points available to determine the final percentage for laboratory and this grade will be averaged with the lecture tests to determine the final grade. It is the student’s responsibility to keep track of the schedule and to be aware of regularly scheduled exams and assignments. A time limit will be imposed on all practical labwork. Practical work not turned in on time will result in an automatic 10-point reduction for each hour the work is late for exams and 1 point per hour for reports. Extra credit may be available at various times during the semester as approved by the instructor. Use of cell phones is prohibited during class time. Points may be deducted for cell phones that ring during class or other disruptive calls. Points may also be deducted for unprofessional behavior at the discretion of the instructor.

X. **ATTENDANCE POLICY:**
Please refer to the most current copy of the Murray State University’s Undergraduate Bulletin and Graduate Bulletin.

Lecture attendance is expected. Lectures will not be repeated for absentee students. Laboratory attendance is mandatory. Students who leave class early or arrive late without making prior arrangements with the instructor will be docked points for professionalism. There will be absolutely no make-ups for pop quizzes, assignments or reports missed during the absences. If an absence is excused, the student will not be penalized for work they miss, but will be responsible for obtaining any material covered for exam purposes. Exams must be taken within the week of absence or the student will receive a zero. Written proof of excuse is required; otherwise, professional points will be docked for that day and all assignments given a zero. It is the student's sole responsibility to obtain any information they missed during an absence and submit written proof of an excused absence to the instructor.

Please refer to the most current copy of the Murray State University’s Undergraduate Bulletin and Graduate Bulletin.

XI. **ACADEMIC HONESTY POLICY:**
Any act of academic dishonesty will not be tolerated in this course and will result in a zero for the assignment or test in question. A letter regarding the incident will also be sent to the head of the department and the dean to be included in the student’s permanent record.

(Adopted by the MSU Board of Regents)
Cheating, plagiarism (submitting another person’s material as one’s own), or doing work for another person which will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying of examinations, assignments, reports, term papers, or the presentation on unacknowledged material as if it were the student’s own work.
Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

NOTE: The School of Agriculture Faculty have adopted and implemented an Academic Honesty Policy in addition to the University Honesty Policy, which can be found in the current Undergraduate Bulletin and Graduate Bulletin. The policy sets guidelines regarding acts of dishonesty and the procedure to follow should an event occur. It is each Agriculture student’s responsibility to obtain and read a copy of this document. The School’s Academic Honesty Policy can be obtained by asking for a copy from any Agriculture Faculty member or the Secretary.

XII. **TEXT AND REFERENCES:**
Veterinary Parasitology Reference Manual by W.J. Foreyt (Required for lab and lecture)
Veterinary Clinical Parasitology by M.W. Sloss, R.M. Kemp, and A.M. Zajac (Required)
Additional References:
Diagnostic Veterinary Parasitology by Charles M. Hendrix
Veterinary Clinical Pathology by E.H. Coles
Clinical Textbook for Veterinary Technicians by D.M. McCurnin
Helminths, Arthropods, and Protozoa of Domesticated Animals by E.J.L. Sloulsby

XIII. **PREREQUISITES:**
AGR 322

XIV. **STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY:**
Murray State University does not discriminate on grounds of race, color, gender, sexual orientation, religion, national origin, age, disability, or veteran's status in providing any educational or other benefits services of Murray State University to students or those applying for admission at Murray State University. Murray State University attempts to provide equal opportunity in all areas of student admissions, financial aid, employment, and placement and provides upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities an equal opportunity to participate in all programs and activities. For information regarding nondiscrimination policies contact the Office of Equal Opportunity, 270-809-3155.

XV. **MSU SCHOOL OF AGRICULTURE CELL PHONE POLICY**
The School of Agriculture recognizes that in today’s world cell phones are a familiar and often necessary form of communication for students.
It shall be the policy of the School that no cell phone usage shall be allowed in class and/or labs without the prior consent of the course instructor. This shall include verbal calling, incoming calls, email, text messaging, and use of cell phone calculators on tests and quizzes.

Cell phones must be kept off and out of sight (i.e. secured to a person’s belt or kept in a bag or purse away from desks and lab counters).

Should a student’s cell phone be visible, ring, or other form of unauthorized usage that is interruptive to the class or lab, the student may be asked to leave class and not return for that class/lab period.

Upon prior consent of the instructor, a student may obtain permission to have their phone on in case of an emergency or in critical family situations.

This policy also includes pagers and other electronic equipment such as blackberries and/or computers/laptops.

*Instructor’s Note: Only simple, non-graphing calculators will be allowed for exam purposes. No cell phones, laptops, or graphing calculators will be allowed during an exam.*