

COURSE SYLLABUS

COURSE TITLE:	BIOL 436 Animal Parasitology		
COURSE CODE:	22496	TERM:	T2 2021/2022
COURSE CREDITS:	3.0	DELIVERY:	Lecture & Practicum (Lab)
CLASS SECTION:	01	START DATE:	January 10, 2022
CLASS LOCATION:	Agriculture 2E83	LAB LOCATION:	Murray Building Room 95
CLASS TIME:	MWF 9:30 – 10:20 AM	LAB TIME:	Tuesday 1:30 – 5:20 PM
WEBSITE:	CANVAS		

Course Description

Deals with helminths, arthropods & protozoa of people, domestic and wild animals. Examples from these will be used to illustrate important concepts, including basic structure and function, life cycles, ecology, biogeography, individual and population level host-parasite-environment relationships, epizootiology and parasite control strategies.

Prerequisites

Prerequisite(s): BIOL 121 and 9 additional credit units of senior BIOL courses or permission of the instructor. **Note:** BIOL 302 is recommended.

Treaty Acknowledgement

As we engage in teaching and learning, I would like to acknowledge that the Saskatoon campus of the University of Saskatchewan is on **Treaty Six Territory** and the **Homeland of the Métis**. We pay our respect to the First Nation and Métis ancestors of this place and reaffirm our relationship with one another. In doing so, we are actively participating in reconciliation as we navigate our time in this course, learning and supporting each other.

Instructor & Course Coordinator

Contact Information:

Jessica Thoroughgood-Smith (Instructor); E-mail: jessica.thoroughgood@usask.ca

Instructor Profile: I am a PhD candidate in the Biology Department at the University of Saskatchewan. My research focuses on the relationship between fleas and their associated bacterial community. Through my graduate program, I have taught students on animal parasitology, laboratory techniques, and introductory biology. I believe a classroom should be a safe and inclusive space where students are able to explore a topic. In my free time, I enjoy knitting, hiking, and camping.

Office Hours: Individual meetings can be scheduled by contacting me (after class or via email).

Learning Outcomes

By the completion of this course, students will be expected to:

1. demonstrate a depth in understanding of parasitology, which includes exploring the life cycles and diversity of parasites in different animal phyla, and how parasites are transmitted to hosts,
2. analyze and solve realistic case studies in medical and veterinary parasitology, and
3. enhance their communication skills (e.g., writing and oral presentations in parasitology using the scientific literature).

Note: The University of Saskatchewan Learning Charter is intended to define aspirations about the learning experience that the University aims to provide, and the roles to be played in realizing these aspirations by students, instructors and the institution. A copy of the Learning Charter can be found at: <https://teaching.usask.ca/about/policies/learning-charter.php>

Course Website & Supplementary Resources

Course material will be posted on the CANVAS page. Students are required to read the course syllabus.

There is no required textbook for this course.

Grading and Assessment Scheme

Midterm exam	20
Lab reports	25
Seminar presentation, participation & written abstract	25
Final exam	30
Total	100%

Note: A penalty of 5% per day will apply to assignments not handed in on time. Extensions can be provided upon request. Please contact the instructor or teaching assistant for an extension.

Evaluation Components

Midterm Exam:

- Value:** 20% of final course grade
Date/Time: February 15, 2022 during lab period
Length: 1 hour
Format: Fill-in-the-blank questions, short-answer, and long-answer questions
Description: Based on lecture material prior to the date of the midterm exam.

Laboratory Reports:

- Value:** 25% of final course grade (5 reports, each worth 5%)
Date: see Laboratory Class Schedule
Format: Details will be provided during class.

Seminar Presentation, participation, and abstract:

Value: 25% of final course grade

This assignment (60 marks) consists of three components: presentation (45 marks), abstract (10 marks) and participation (5 marks), the latter of which is determined by the number and quality of questions asked by each student. The seminar presentation will be marked using five criteria: content (20 marks), slide quality (10 marks), delivery style (8 marks), timing (3 marks) and responses to student questions (4 marks).

Date: See Laboratory Class Schedule

Format: Oral presentation, written abstract and student questions

Description: Each student will prepare a 15–17-minute oral presentation with slides. The choice of topic will be based on a list of parasites and recently published journal articles prepared by the instructor. Choice of topic must be approved by the instructor or the teaching assistant during Report 1. No two students will have the same topic. Following each presentation, there will be a 5 min question period during which students will be invited to ask questions of the presenter. **Attendance by students for all seminar presentations is mandatory.** Students must prepare a written abstract (250-500 words) of their presentation.

Final Exam:

Value: 30% of final course grade

Date: TBD by the college during the examination period.

Format: 3 hr exam with fill-in-the-blank questions, short-answer, and long-answer questions

Student Feedback

Students will be encouraged to meet with the instructor to review their performance.

Class Schedule**Lecture information:**

Lectures will be delivered in-person beginning at 9:30 AM on Mondays, Wednesdays, Fridays. Students are expected to attend and be on time for all scheduled lectures. An attempt will be made to have partial lecture notes provided to students before class.

Lecture topics (include, but not necessarily in the following order): What is parasitism, parasite evolution; terminology and general concepts; host specificity; major parasite groups and their life cycles [protozoa, platyhelminths, nematodes, acanthocephalans & arthropods], site selection by parasites; environmental effects on parasite life cycles; effect of climate change on parasite distribution; and manipulation of hosts by parasites.

Laboratory schedule and information:

Students are expected to attend and be on time for all scheduled labs. Students are advised to consult with the instructor when they are unable to attend the lab period or are facing extenuating personal circumstances.

Week	Dates	Laboratory Classes
1	Jan 11	No lab
2	Jan 18	Lab 1: Introduction and seminar preparations Report 1 due Feb 4
3	Jan 25	No lab
4	Feb 1	Lab 2: Parasite life cycles and red queen Report 2 due Feb 11
5	Feb 8	Lab 3: Parasite diversity and identification Report 3 due Feb 18
6	Feb 15	Midterm Exam
7	Feb 22	Midterm Break - no lab
8	Mar 1	Lab 4: Parasite monsters Report 4 due Mar 11
9	Mar 8	Lab 5: Parasite and humans Report 5 due Mar 28 Presentation Abstract due Mar 11
10	Mar 15	Lab 6: Student Presentations 1
11	Mar 22	Lab 7: Student Presentations 2
12	Mar 29	Lab 8: PSI
13	Apr 5	Lab 9: Parasitology Playoffs – March Madness

Last day to withdraw from course without academic penalty is April 5th 2022

University of Saskatchewan Grading System

Students in BIOL 436 are reminded that the University has established a grading system to be used in all of its courses. Information on literal descriptors for grading at the University of Saskatchewan (reproduced below) can be found at:

<http://students.usask.ca/current/academics/grades/grading-system.php>

Scheduling of Exams

Midterm Exam:

The Midterm exam must be written on the date scheduled. In the event that a student is absent from the **midterm exam** through no fault of their own due to a medical emergency, death in the family, or other valid reasons, documentation may be requested to explain the absence, to assist in the determination of whether permission will be granted for the student to write a deferred mid-term exam. Students absent for the Mid-Term Lecture Exam must advise Ms. Thoroughgood-Smith by email through CANVAS and initiate arrangements for writing a Deferred Mid-Term Exam, **within 3 working days of the missed exam**, to avoid being assigned a grade of zero for the exam.

Final Exam:

Final examinations may be scheduled at any time during an examination period. Students should therefore avoid making prior travel, employment, or other commitments for this period. If a student is absent from the **final exam** through no fault of their own for medical or any other valid reason, **they must apply to the Dean's Office of the College in which they are registered for an opportunity to write a Deferred Final Exam, within 3 working days of the missed exam**. Documentation must also be provided to explain the absence from the final exam. Deferred exams may utilize a different format than the regular exam, at the sole discretion of the instructors.

Students are encouraged to review all examination policies and procedures:

<http://students.usask.ca/academics/exams.php>

COVID-19 Safety

During this transition term it is important that we undertake the in-person elements of this class safely. In order to do this, the university has developed a set of expectations and safety protocols that all students must adhere to if they are to engage in in-person activity.

Throughout the term:

- **Protect the pack:** Right now, the impact of student choices and activities when not on campus cannot be separated from time spent on campus. In order to “protect the pack”, the university is asking all students who are doing in-person work to be mindful and do whatever possible to lower the risk that you will contract COVID-19 and bring it onto campus.
- **Know what is required and expected of you:** One of the critical lessons learned in dealing with COVID-19 is knowing that situations can change and we must be flexible and ready to adjust our safety protocols. Instead of listing all of the relevant information in your course outline, the university has created [a webpage](#) where all up-to-date information around returning to campus is listed. **You are responsible** for **regularly** checking the health and safety guidelines <https://covid19.usask.ca/about/safety.php#Expectations> and knowing what is expected of you throughout the fall term.
- **Follow all guidance:** Students are expected to follow all guidance provided by the University’s Pandemic Recovery/Response Team (PRT), College/Department, professors, lab instructors, TAs, and any other staff member involved in the in-person academic program activities (e.g., Protective Services, Safety Resources).
- **Key channels of communication:** If there is a need for the lab class to pause meeting in-person for a period of time you will be notified. If this occurs, you will be provided with detailed information on what you will need to do in place of the in-person lab class sessions (e.g., read content posted in Canvas, complete learning activities in Canvas). Students will be notified by class announcements in Canvas.

Copyright

Course materials are provided to you based on your registration in a class, and anything created by your professors and instructors is their intellectual property, unless materials are designated as open education resources. This includes exams, PowerPoint/PDF slides and course notes. Additionally, other copyright-protected materials created by textbook publishers and authors may be provided to you based on license terms and educational exceptions in the Canadian Copyright Act (see <http://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>).

Before you copy or distribute others’ copyright-protected materials, please ensure that your use of the materials is covered under the University’s Fair Dealing Copyright Guidelines available at <https://library.usask.ca/copyright/general-information/fair-dealing-guidelines.php>. For example, posting others’ copyright-protected materials on the open web is not covered under the University’s Fair Dealing Copyright Guidelines, and doing so requires permission from the copyright holder.

For more information about copyright, please visit <https://library.usask.ca/copyright/index.php> where there is information for students available at <https://library.usask.ca/copyright/students/rights.php>, or contact the University’s Copyright Coordinator at <mailto:copyright.coordinator@usask.ca> or 306-966-8817.

Academic Integrity

The University of Saskatchewan is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Student Conduct & Appeals section of the University Secretary Website and avoid any behaviour that could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

All students should read and be familiar with the Regulations on Academic Student Misconduct (<https://secretariat.usask.ca/student-conduct-appeals/academic-misconduct.php>) as well as the Standard of Student Conduct in Non-Academic Matters and Procedures for Resolution of Complaints and Appeals (<https://secretariat.usask.ca/student-conduct-appeals/academic-misconduct.php#IXXIIAPPEALS>)

For more information on what academic integrity means for students see the Academic Integrity section of the University Library Website at: <https://library.usask.ca/academic-integrity#AboutAcademicIntegrity>

You are encouraged to complete the Academic Integrity Tutorial to understand the fundamental values of academic integrity and how to be a responsible scholar and member of the USask community - <https://library.usask.ca/academic-integrity.php#AcademicIntegrityTutorial>

Examinations with Access and Equity Services (AES)

Students who have disabilities (learning, medical, physical, or mental health) are strongly encouraged to register with Access and Equity Services (AES) if they have not already done so. Students who suspect they may have disabilities should contact AES for advice and referrals at any time. Those students who are registered with AES with mental health disabilities and who anticipate that they may have responses to certain course materials or topics, should discuss course content with their instructors prior to course add / drop dates. In order to access AES programs and supports, students must follow AES policy and procedures. For more information or advice, visit <https://students.usask.ca/health/centres/access-equity-services.php>, or contact AES at 306-966-7273 or aes@usask.ca.

Students registered with AES may request alternative arrangements for mid-term and final examinations. Students must arrange such accommodations through AES by the stated deadlines. Instructors shall provide the examinations for students who are being accommodated by the deadlines established by AES.

For information on AES services and remote learning please visit <https://updates.usask.ca/info/current/accessibility.php#AccessandEquityServices>

Student Supports

Physical and Mental Health Support

The Student Wellness Centre offers urgent and non-urgent physical and mental health care to University of Saskatchewan students and their dependents. For more information, see the student's website <https://students.usask.ca/health/centres/wellness-centre.php>.

Academic Help for Students

The University Library offers a range of learning and academic support to assist USask The University Library offers a range of learning and academic support to assist USask undergrad and graduate students. For information on specific services, please see the Learning page on the Library web site <https://library.usask.ca/support/learning.php>.

- Remote learning support information <https://students.usask.ca/study/remote-learning.php>
- Remote learning tutorial https://libguides.usask.ca/remote_learning
- Study skills materials for online learning <https://libguides.usask.ca/studyskills>
- A guide on netiquette, principles to guide respectful online learning interactions <https://teaching.usask.ca/remote-teaching/netiquette.php>

Teaching, Learning and Student Experience

Teaching, Learning and Student Experience (TLSE) provides developmental and support services and programs to students and the university community. For more information, see the students' web site <http://students.usask.ca>.

Financial Support

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact Student Central (<https://students.usask.ca/student-central.php>).

Aboriginal Students' Centre

The Aboriginal Students' Centre (ASC) is dedicated to supporting Aboriginal student academic and personal success. The centre offers personal, social, cultural and some academic supports to Métis, First Nations, and Inuit students. The centre is also dedicated to intercultural education, bringing Aboriginal and non-Aboriginal students together to learn from, with and about one another in a respectful, inclusive and safe environment. Students are encouraged to visit the ASC's Facebook page (<https://www.facebook.com/aboriginalstudentscentre/>) to learn more.

International Student and Study Abroad Centre

The International Student and Study Abroad Centre (ISSAC) supports student success and facilitates international education experiences at USASK and abroad. ISSAC is here to assist all international undergraduate, graduate, exchange, and English as a Second Language students in their transition to the University of Saskatchewan and to life in Canada. ISSAC offers advising and support on matters that affect international students and their families and on matters related to studying abroad as University of Saskatchewan students. Please visit students.usask.ca or updates.usask.ca for more information.

College Supports

Students in Arts & Science are encouraged to contact the Undergraduate Student Office and/or the Trish Monture Centre for Success with any questions on how to choose a major; understand program requirements; choose courses; develop strategies to improve grades; understand university policies and procedures; overcome personal barriers; initiate pre-career inquiries; and identify career planning resources. Contact information is available at:

<http://artsandscience.usask.ca/undergraduate/advising/>
