

COURSE SYLLABUS

COURSE TITLE:	BIOL 436 Animal Parasitology
COURSE CODE:	80021
TERM:	T1 2022 / 2023
COURSE CREDITS:	3.0
CLASS SECTION:	01
DELIVERY:	Lecture & Practicum (Lab)
LECTURE LOCATION:	room 165, Geology Building
LECTURE TIME:	10.30 to 11.20 am (M, W & F)
LAB LOCATION:	room G11, Thorvaldson Building
LAB TIME:	1.30 to 5.20 pm (Tuesday)
WEBSITE:	via 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.

Course Overview

This course is designed to introduce you to the vast and exciting field of biology, with a focus on biological diversity, evolution, adaptations of organisms to specific environments, and the evolutionary and ecological factors influencing changes in biodiversity over time and space.

Treaty Acknowledgement

As we engage in Remote 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.

Instructor & Course Coordinator

Contact Information:

Prof. Neil Chilton office location: room 320.7 Collaborative Science Research Building
Phone 306-966-4407
e-mail: neil.chilton@usask.ca

Instructor Profile:

I am a regular faculty member and professor in the Department of Biology. I teach and conduct research in biology. My specialized areas of teaching and research are animal parasitology. Website = <https://research-groups.usask.ca/chilton/>

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).

Learning Charter

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>.

Required Textbook

None

Downloads

These will be available as appropriate through the CANVAS course page. **The only document that you are required to read is this course syllabus.** Please note that I may provide you with lecture notes as a courtesy. You are not required to download or print these notes. While I will endeavor to have lecture notes posted sometime in advance of the lectures; however, I will not guarantee this.

Class Schedule

Lecture class information:

Lectures will be delivered in-person beginning at 10.30 am on Mondays, Wednesdays and Fridays. Students are expected to attend and be on time for all scheduled lectures.

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 class schedule and information:

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

Week	Date	Laboratory classes
1		No class
2	Sept 6	Lab 1: Meet & greet session, and information on seminar presentations
3	Sept 13	Lab 2: The Amazing World of Parasites Report 1 due before 5 pm Sept 19th
4	Sept 20	Lab 3: Parasite diversity and identification Report 2 due before 5 pm Sept 26th
5	Sept 27	Lab 4: Exam review
6	Oct 4	Mid-term Exam
7	Oct 11	Lab 5: Case Study - Parasite monsters Report 3 due before 5 pm Oct 19th
8	Oct 19	<i>No lab scheduled</i>
9	Oct 25	Lab 6: Parasite Scene Investigations (PSI) Report 4 due before 5 pm Nov 1st
10	Nov 1	<i>Optional lab: Presentation help</i> All seminar abstracts due before 5 pm Nov 4th PowerPoint presentations during weeks 12 and 13 must be submitted before 4 pm on Nov 13th
11	Nov 8	NO CLASS - Winter Midterm Break
12	Nov 15	Lab 7: Seminar Presentations
13	Nov 22	Lab 8: Seminar Presentations
14	Nov 29	Lab 9: Parasitology Playoffs (Exam review)
15	Dec 6	<i>No lab scheduled</i>

Last day to withdraw from course without academic penalty is Wednesday December 7th 2022.

Grading and Assessment Scheme

Grading component	%
Mid-term exam	20
Final exam	35
Lab reports	20
Seminar Presentation, participation & written abstract	25
Total	100

Evaluation Components

Midterm Exam:

Value: 20% of final course grade
Date/Time: October 4th at 1.30 pm
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. Electronic devices are not allowed.

Final Exam:

Value: 35% of final course grade
Date: Consult Final Exam Schedule
Format: Fill-in-the-blank questions, short answer and long answer questions.
Description: The exam is comprehensive in that it will cover all lecture material. However, material delivered after the midterm exam will be emphasized. Calculators and all other electronic devices are not allowed.

Laboratory Reports:

Value: 20% of final course grade (4 reports, each worth 5%)
Date: see Laboratory Class Schedule
Format: Details will be provided during class.

Seminar Presentation, participation & written abstract:

Value: 25% of final course grade - This assignment (60 marks) consists of three components: the presentation (45 marks), an 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 marks for the seminar presentation are determined 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 and record a 15 to 18 minute oral presentation (using PowerPoint). The choice of topic will be based on a list of parasites and recently published journal articles prepared by Dr. Chilton. Choice of topic must be approved by Dr. Chilton or the Teaching Assistant. No two students will have the same topic. PowerPoint presentations must be supplied to Prof. Chilton **before 4 pm on November 13th**. 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 **before 5 pm on November 4th**.

Note: A penalty of 5% per day will apply to assignments not handed in on time.

University of Saskatchewan Grading System

Students in BIOL 436 are reminded that the University has established a grading system to be used in all courses. Information on literal descriptors for grading at the University of Saskatchewan (reproduced below) can be found at: <http://students.usask.ca/academics/grading/grading-system.php>

For information regarding appeals of final grades or other academic matters, please visit the Student Conduct and Appeals section of the University Secretary's webpages: <https://secretariat.usask.ca/student-conduct-appeals/appeals-in-academic-matters.php>

Scheduling of Exams

Midterm and final examinations, and the lab exam, must be written on the date scheduled. **As final examinations may be scheduled at any time during the examination period in December 2022, students should avoid making prior travel, employment, or other commitments for this period.**

Students must bring their current University of Saskatchewan student card to all in-person exams and be prepared to present it for verification purposes. Entry into certain campus buildings where exams may be held, also requires a valid student card.

It is forbidden for students to utilize in any way during an in-person exam, any electronic device (e.g., cell phone, dictionary, palm pilot, translator, etc.). This includes calculators because these are not required for any exam.

If 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 must be provided explaining 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 Dr. Chilton in person or by telephone (not by email) 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.

If a student is absent from the final exam through no fault of their own for medical or any other valid reason, then the student 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>

Student Feedback

Exam questions will not be posted after an exam. Students will be encouraged to meet with the Dr. Chilton to review their performance anytime during the course by appointment.

Use of Video and Recording of the Course

Students are not allowed to record any aspect of this course, except with the permission of the instructor or as provided for by arrangements with AES. Any recording made under AES provisions is to only be used for the personal learning of the student who made the recording.

Please remember that course recordings belong to your instructor, the University, and/or others (like a guest lecturer) depending on the circumstance of each session, and are protected by copyright. Do not download, copy, or share recordings without the explicit permission of the instructor.

For questions about recording and use of sessions in which you have participated, including any concerns related to your privacy, please contact your instructor. More information on class recordings can be found in the Academic Courses Policy
<https://policies.usask.ca/policies/academic-affairs/academic-courses.php#5ClassRecordings>.

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, course notes and lecture recordings. 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.

Integrity Defined (from the Office of the University Secretary)

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 behavior 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 (http://www.usask.ca/university_secretary/honesty/StudentAcademicMisconduct.pdf) as well as the Standard of Student Conduct in Non-Academic Matters and Procedures for Resolution of Complaints and Appeals (http://www.usask.ca/university_secretary/honesty/StudentNon-AcademicMisconduct2012.pdf)

For more information on what academic integrity means for students see the Student Conduct & Appeals section of the University Secretary Website at:
http://www.usask.ca/university_secretary/pdf/dishonesty_info_sheet.pdf

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. 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.

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/>