

COURSE SYLLABUS

COURSE TITLE:	BIOL 436 Animal Parasitology
COURSE CODE:	80021
TERM:	T1 2023 / 2024
COURSE CREDITS:	3.0
CLASS SECTION:	01
DELIVERY:	Lecture & Practicum (Lab)
LECTURE LOCATION:	room 165, Geology Building
LECTURE TIME:	9.30 to 10.20 am (M, W & F)
LAB LOCATION:	room G11, Thorvaldson Building
LAB TIME:	1.30 to 5.20 pm (Monday)
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 9.30 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 11	Lab 1: Meet & greet session, and information on seminar presentations
3	Sept 18	Lab 2: The Amazing World of Parasites Report 1 due before 5 pm Sept 25th
4	Sept 25	Lab 3: Parasite diversity and identification Report 2 due before 5 pm Oct 2nd
5	Oct 2	Lab 4: Exam review
6	Oct 9	NO CLASS – Thanksgiving Mid-term Exam – Wed lecture (Oct 11th)
7	Oct 16	Lab 5: Case Study - Parasite monsters Report 3 due before 5 pm Oct 23rd
8	Oct 23	<i>No lab scheduled</i> Use this time to finalize your preparations of seminar presentation & abstract
9	Oct 30	Lab 6: Parasite Scene Investigations (PSI) Report 4 due before Sunday 5 pm Nov 5th All seminar abstracts due before 1 pm Nov 13th PowerPoint presentations during weeks 11 and 12 must be submitted before 1 pm on Nov 13th
10	Nov 6	NO CLASS - Winter Midterm Break
11	Nov 13	Lab 7: Seminar Presentations
12	Nov 20	Lab 8: Seminar Presentations
13	Nov 27	Lab 9: Parasitology Playoffs (Exam review)
14	Dec 4	<i>No lab scheduled</i>

Last day to withdraw from course without academic penalty is Friday December 8th 2023.

Grading and Assessment Scheme

Grading component	%
Mid-term exam	15
Final exam	35
Lab reports	20
Seminar Presentation	20
Seminar - participation	5
Seminar - written abstract	5
Total	100

Evaluation Components

Midterm Exam:

Value: 15% of final course grade
Date/Time: October 11th at 9.30 am. (during lecture timeslot)
Length: 50 mins
Format: Fill-in-the-blank questions, short-answer questions and a long-answer question.
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: 30% of final course grade – three components are: seminar presentation (20%), active participation in all seminar sessions [i.e., asking questions of seminar speakers] (5%) and a written abstract of your seminar presentation (5%).
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. All PowerPoint presentations must be supplied to Prof. Chilton **before 1pm 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 1 pm on November 13th**.

A grading rubric will be provided in class for each component, and the requirements for each task will be discussed in detail during the first lab class. This information will then be posted on CANVAS.

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 2023, 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 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 material created by your professors and instructors is their intellectual property and cannot be shared without written permission. This includes exams, PowerPoint/PDF lecture slides and other course notes. If materials are designated as open education resources (with a creative commons license) you can share and/or use them in alignment with the [CC license](#). 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](#).

You are responsible for ensuring that any copying or distribution of materials that you engage in is permitted by the University's "[Use of Materials Protected By Copyright](#)" Policy. For example, posting others' copyright-protected materials on the open internet is not permitted by this policy unless you have copyright permission or a license to do so. For more copyright information, please visit <https://library.usask.ca/copyright/students/index.php> or contact the University Copyright Coordinator at copyright.coordinator@usask.ca or 306-966-8817.

Academic Integrity

The University of Saskatchewan is committed to the highest standards of academic integrity. <https://academic-integrity.usask.ca/>

Students are urged to read the [Regulations on Academic Misconduct](#) and to avoid any behaviours that could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence.

For help developing the skills for meeting academic integrity expectations, see: <https://academic-integrity.usask.ca/students.php>

Students are encouraged to ask their instructors for clarification on academic integrity requirements.

All students are encouraged to be aware of the rules for courses set out in the [Academic Courses Policy on Class Delivery, Examinations, and Assessment of Student Learning](#).

Artificial intelligence text generator tools (also known as large language models) **are not** permitted to be used in any assessments for this course. Any use of such tools will be considered academic misconduct in this course.

Students wanting to connect their assessment in this course to assessments they have completed in another course must get explicit permission of the instructor in order to avoid potential academic misconduct of self-plagiarism.

Important Note: Additional information about student misconduct specific to BIOL 121 can be found in the laboratory manual. BIOL 121 students are required to read and understand the information about misconduct that is presented in the laboratory manual.

Access and Equity Services (AES) for students

Access and Equity Services (AES) is available to provide support to students who require accommodations due to disability, family status, and religious observances.

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.

Students who require accommodations for pregnancy or substantial parental/family duties should contact AES to discuss their situations and potentially register with that office.

Students who require accommodations due to religious practices that prohibit the writing of exams on religious holidays should contact AES to self-declare and determine which accommodations are appropriate. In general, students who are unable to write an exam due to a religious conflict do not register with AES but instead submit an exam conflict form through their PAWS account to arrange accommodations.

Any student registered with AES, as well as those who require accommodations on religious grounds, may request alternative arrangements for mid-term and final examinations by submitting a request to AES by the stated deadlines. Instructors shall provide the examinations for students who are being accommodated by the deadlines established by AES.

For more information or advice, visit <https://students.usask.ca/health/centres/access-equity-services.php>, or contact AES at 306-966-7273 (Voice/TTY 1-306-966-7276) or email aes@usask.ca.

Student Supports

Academic Help – University Library

Visit the [University Library](#) and [Learning Hub](#) to find supports for undergraduate and graduate students with first-year experience, study skills, learning strategies, research, writing, math and statistics. Students can attend [workshops](#), access [online resources and research guides](#), book [1-1 appointments](#) or hire a [subject tutor](#) through the [USask Tutoring Network](#)

Connect with library staff through the [AskUs](#) chat service or visit various [library locations](#) on campus.

Enrolled in an online course? Explore the [Online Learning Readiness Tutorial](#).

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' website <http://students.usask.ca>.

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/>)

Financial Support

Any student who faces unexpected 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>.

Gordon Oakes Red Bear Student Centre

The Gordon Oakes Red Bear Student Centre) is dedicated to supporting Indigenous 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 an intercultural gathering space that brings Indigenous and non-Indigenous students together to learn from, with and about one another in a respectful, inclusive, and safe environment. Visit <https://students.usask.ca/indigenous/index.php> or students are encouraged to visit the ASC's website <https://students.usask.ca/indigenous/gorbsc.php>

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. Visit <https://students.usask.ca/international/issac.php> for more information.
