

# **COURSE SYLLABUS**

COURSE TITLE: BIOL 436 Animal Parasitology

COURSE CODE: 26752 TERM: T2 2014/2015

COURSE CREDITS: 3.0 DELIVERY: Lecture & Practicum (Lab)

CLASS SECTION: 01 START DATE: January 5<sup>th</sup> 2015

CLASS LOCATION: room 125 Biology Bldg LAB LOCATION: room 218 Biology Bldg CLASS TIME: 1.30 to 12.30 pm (M,W,F) LAB TIME: 1.30 to 5.20 pm (M)

WEBSITE: via Blackboard

# **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.

Prerequisite(s): BIOL 121 and 9 additional credit units of senior BIOL courses or permission of the instructor. **Note:** BIOL 302 (formerly BIOL 401) is recommended.

# **Learning Outcomes**

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

- 1. have an understanding of parasitological concepts
- 2. explore the life cycles and diversity of parasites of different animal phyla
- 3. understand how parasites are transmitted to hosts, and
- 4. develop their communication skills (e.g., writing and oral presentations).

<u>Note:</u> 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: <a href="http://www.usask.ca/university\_secretary/LearningCharter.pdf">http://www.usask.ca/university\_secretary/LearningCharter.pdf</a>

More information on the Academic Courses Policy on course delivery, examinations and assessment of student learning can be found at:

http://www.usask.ca/university\_secretary/council/academiccourses.php

# **Instructor & Course Coordinator**

#### **Contact Information:**

Dr. Neil Chilton room 310 Biology Bldg 966-4407
Course Coordinator/Instructor neil.chilton@usask.ca

### **Recommended Resources**

Bush, Fernandez & Esch 2001 "Parasitism and ecology of animal parasites", Cambridge Univ. Press Other relevant readings will be indicated during lectures/laboratory classes.

Note: Copies of this text are available on reserve in the Natural Sciences Library.

#### **Downloads**

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

### **Class Schedule**

<u>Lecture topics</u> (include, but not necessarily in the following order): What is parasitism, parasitic groups, terminology and general concepts; host specificity; major parasite groups and their life cycles [protozoa, platyhelminths, nematodes, nematomorphs, acanthocephalans & arthropods], site selection by parasites; structures for attaching to hosts; environmental effects on parasite life cycles; parasite evolution; traditional and molecular methods used in the diagnosis of parasite infections; factors influencing species distribution and abundance; effect of climate change on parasite distribution; manipulation of hosts by parasites.

<u>Laboratory class schedule</u> (\*\* = subject to change): Students are expected to attend and be on time for all scheduled labs. The tentative lab schedule is provided below:

WEEK day		LAB TOPIC
1	Jan 5	NO LAB
2	Jan 12	Introduction & preparation of seminars
3	Jan 19	Parasite diversity - Film and Discussion
4	Jan 26	Parasite morphology, identification & diversity (report due Feb 9)
5	Feb 2	Parasite games (report due on March 9 or 23 – see footnote)
6	Feb 9	Mid-term exam (2 hr)
7	Feb 16-20	Midterm Break – no classes
8	Feb 23	Site specificity of parasites**
9	Mar 2	PSI – Parasite Scene Investigations
10	Mar 9	Seminar presentations
11	Mar 16	Seminar presentations
12	Mar 23	Seminar presentations
13	Mar 30	Parasitology University Challenge (Exam review)
14	Apr 6	NO LAB

#### Parasite games report is due on :

March 9 for students with a seminar presentation during week of March 23<sup>rd</sup>
March 23 for students with a seminar presentation during weeks of March 9<sup>th</sup> or 16<sup>th</sup>

Last day to withdraw from course without academic penalty is Saturday March 15<sup>th</sup> 2015.

# **Grading Scheme**

Midterm exam	15
Lab reports	15
Seminar Presentation, participation & written abstract	30
Final exam	40
Total	100%

# **Evaluation Components**

### Midterm Exam:

Value: 15% of final course grade Date: See Laboratory Schedule

Length: 120 minutes

**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: 40% of final course grade
Date: Consult Final Exam Schedule

Length: 3 hours

**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: 15% of final course grade

Date: see Laboratory Schedule

Format: Details will be provided during class

#### Seminar Presentation, participation and written report of seminar presentation:

Value: 30% of final course grade
Date: See Laboratory Schedule

**Format:** Oral presentation, written abstract and student questions

Description: The Each student will prepare and present an oral presentation on the ecology,

evolutionary history, taxonomy or any other aspect of the biology of one parasite species or a group of closely-related species. Each presentation will be of 12 mins. duration (using Powerpoint), followed by a 3 min. question period from primarily the other students. **Attendance by all students for all seminar presentations is mandatory**. The instructor or lab demonstrator must approve your choice of topic for the presentation. In February, a list will be placed on paws to indicate the topics selected by students for their presentation. This is to avoid two students speaking

on the same parasite(s).

# **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**

Students must bring their current University of Saskatchewan student card to all 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 exam, any electronic device (e.g., cell phone, dictionary, palm pilot, translator, etc.). This includes calculators because these are not required for any exam.

Midterm and final examinations, and the lab exam, must be written on the date scheduled. Final examinations may be scheduled at any time during the examination period in April 2015; students should therefore avoid making prior travel, employment, or other commitments for this period.

In the event that a student is absent from the **midterm exam** through no fault of his/her 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 their Instructor in person or by telephone (not by email) and initiate arrangements for writing a Deferred Mid-Term Exam, within 3 working days of the <b>missed exam**, in order to avoid being assigned a grade of zero for the exam.

If a student is absent from the **final exam** through no fault of his or her own for medical or any other valid reason, **he/she must apply to the Dean's Office of the College in which he/she is registered for an opportunity to write a Deferred Final Exam, within 3 working days of the <b>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: <a href="http://www.usask.ca/calendar/exams&grades/examregs/">http://www.usask.ca/calendar/exams&grades/examregs/</a>

#### Student Feedback

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

# **Attendance Expectations for Laboratory Classes**

Students are expected to attend all scheduled lab periods. Students are advised to consult their instructor when they are too ill to attend the lab period or are facing extenuating personal circumstances.

# **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 (<a href="http://www.usask.ca/university\_secretary/honesty/StudentAcademicMisconduct.pdf">http://www.usask.ca/university\_secretary/honesty/StudentAcademicMisconduct.pdf</a>) as well as the Standard of Student Conduct in Non-Academic Matters and Procedures for Resolution of Complaints and Appeals (<a href="http://www.usask.ca/university\_secretary/honesty/StudentNon-AcademicMisconduct2012.pdf">http://www.usask.ca/university\_secretary/honesty/StudentNon-AcademicMisconduct2012.pdf</a>)

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 Disability Services for Students (DSS)**

Students who have disabilities (learning, medical, physical, or mental health) are strongly encouraged to register with Disability Services for Students (DSS) if they have not already done so. Students who suspect they may have disabilities should contact DSS for advice and referrals. In order to access DSS programs and supports, students must follow DSS policy and procedures. For more information, check <a href="http://www.students.usask.ca/disability/">http://www.students.usask.ca/disability/</a>, or contact DSS at 966-7273 or dss@usask.ca.

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

Prepared by Prof. Neil Chilton