



RENr 468

MANAGEMENT AND CONSERVATION OF GENETIC RESOURCES

In Winter 2020, RENr 468, *Management & Conservation of Genetic Resources*, is being offered at Yukon College as part of the Northern Environmental and Conservation Sciences, B.Sc. Program. All students registered in RENr 468 must adhere to the requirements outlined in this course syllabus. University of Alberta students must also be aware of, and adhere to, the University's Code of Student Behaviour, referenced in the outline.

INSTRUCTOR: Tyler Kuhn

OFFICE HOURS: by appointment

OFFICE LOCATION: NA

TELEPHONE/E-MAIL: 867-334-5633 / tyler@akstudios.ca

CLASS DAYS & TIMES: Mondays, 4:30 to 7:20pm

CLASS LOCATION: A2315

COURSE DESCRIPTION:

This course will provide an overview of principles and issues involved in conserving and managing natural populations of plants and animals from genetic perspectives. Lectures covering fundamental genetic concepts will be supplemented with case studies that focus on the application of genetic methods to understanding species biology and the conservation of genetic components of biological diversity.

STUDENT LEARNING OUTCOMES AND COMPETENCIES:

Upon successful completion of this course students will be able to do the following:

- Understand the implications of genetic factors on small and threatened populations.
- Understand the application of genetic information to resolution of taxonomic uncertainties and delineation of management units.
- Understand the importance of considering genetic factors in the design of conservation and management strategies at a variety of levels, from local populations to global communities.
- Be able apply their knowledge in a critical way when evaluating current research.

COURSE FORMAT:

The course consists of one 3-hour lecture per week.

COURSE PREREQUISITES AND/OR CO-REQUISITES:

Registration in Yukon College/University of Alberta BSc in Environmental and Conservation Sciences degree program, and successful completion of U of A BIOL 208, YC BIOL 220 or an equivalent second-year ecology course.

REQUIRED TEXTBOOKS/MATERIALS:

There is no required textbook for the course. Required readings will be distributed by the instructor.

Optional: Frankham R, *et al.* 2010. Introduction to Conservation Genetics, 2nd Edition. Cambridge University Press. ISBN-13: 978-0521702713

COURSE WEBSITE

All relevant course information, including lecture notes, readings and assignments will be available on University of Alberta eClass website.

<https://eclass.srv.ualberta.ca/course/view.php?id=57334>

UNIVERSITY OF ALBERTA ACADEMIC INTEGRITY AND CODE OF STUDENT BEHAVIOUR

Academic Integrity

The University of Alberta 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 Code of Student Behaviour (online at www.governance.ualberta.ca) and avoid any behaviour which 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.

Code of Student Behaviour

All students at the University of Alberta are subject to the Code of Student Behaviour, as outlined at:

<https://www.ualberta.ca/governance/resources/policies-standards-and-codes-of-conduct/code-of-student-behaviour>. Please familiarize yourself with it and ensure that you do not participate in any inappropriate behavior as defined by the Code. Key components of the code include the following statements.

30.3.2(1) No Student shall submit the words, ideas, images or data of another person as the Student's own in any academic writing, essay, thesis, project, assignment, presentation or poster in a course or program of study.

30.3.2(2) c. No Student shall represent another's substantial editorial or compositional assistance on an assignment as the Student's own work.

PROFESSIONALISM AND CLASSROOM RULES OF ENGAGEMENT

Students are expected to attend all lectures, be engaged and courteous in all course activities, and to be on time for class. Please do not use cellular phones during class. Laptops are permitted for note taking and in-class work; however, please do not use laptops in class for non-class-related activities. While in computer labs, students are expected to refrain from using the computers to engage in non-class-related activities (e.g. Facebook, etc.).

COURSE REQUIREMENTS/EVALUATION:

Assignments

Students will develop a project summary for a wildlife genetics (genomics) research project, following the criteria outlined in the Genome Canada 2020 call for proposals. The proposed project

will outline a hypothetical new project that uses genomics tools to address a wildlife conservation or management need in Northern Canada. More details will be provided in class.

Unless otherwise specified, assignments are due by 11:59 pm local time on the date that they are due. Late assignments will lose 5% of their mark per day that they are late.

Exams

There will be one midterm exam and one comprehensive final exam. The midterm exam will be scheduled during class time on **Monday, February 24th, 2020**. The final examination will be an open book take-home exam. The exam will be handed out during the final class. Students will have 7 days to complete the exam. Students will be provided with a study guide containing sample exam questions and topics.

Evaluation

The course grade will be determined as follows:

Assignment	Percent
Midterm exam (Feb 24)	30%
Research project proposal (due Apr 6)	30%
Final exam (due Apr 13)	40%

Assignment of grades

Grades will NOT be adjusted to fit a predetermined distribution. The total numerical score will be converted to a grade on the University of Alberta's letter grading system.

ELECTRONIC DEVICES:

There are no restrictions on the use of electronic devices. Students will be required to use a standard calculator for some assignments.

RECORDING OF LECTURES, LABS, ETC.:

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

Please note that some classes in the B.Sc. Northern ENCS Program may be recorded using web conferencing software, and links to recordings may be posted on the class website.

YUKON FIRST NATIONS CORE COMPETENCY:

Yukon College recognizes that a greater understanding and awareness of Yukon First Nations history, culture and journey towards self-determination will help to build positive relationships among all Yukon citizens. As a result, to graduate from ANY Yukon College program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see www.yukoncollege.yk.ca/yfnccr.

ACADEMIC ACCOMMODATION:

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are available for students with a documented disability, chronic condition or any other grounds specified in section 8.0 of the Yukon College Academic Regulations (available on the Yukon College website). It is the student's responsibility to seek these accommodations. If a student requires an academic accommodation, he/she should contact the Learning Assistance Centre (LAC): lac@yukoncollege.yk.ca.

TENTATIVE SCHEDULE OR TOPIC OUTLINE

See course outline