



**Course Outline**

**ENVIRONMENTAL**  
**TECHNOLOGY**

**ENVT 170**  
**Animal Identification**  
**Fall, 2012**

**3 CREDITS**  
**4 HOURS PER WEEK**

**INSTRUCTOR: Danna Schock**

**INSTRUCTOR:** Danna Schock  
**PHONE NUMBER:** (780) 791-4816  
**E-MAIL:** danna.schock@keyano.ca  
**OFFICE NUMBER:** S209c

**OFFICE HOURS:**

Monday	1:00 – 1:50 pm
Tuesday	1:00 – 2:50 pm
Thursday	11:00 – 11:50 pm
Friday	11:00 – 11:50 pm

Please email me to make an appointment at an alternate time if these times won't work for you.

**HOURS OF INSTRUCTION:**

Wednesday 1:00 pm – 4:50 am Room S114

**COURSE DESCRIPTION:**

Students will develop identification skills necessary for identifying vertebrates and aquatic invertebrates of Alberta, with a special emphasis on identifying provincially and/or federally listed species. Course topics include bird ID by sight and ear, mammal tracking, and aquatic invertebrate collection and identification.

**PRE-REQUISITE(S):**

admission into the ENVT program

**COURSE OUTCOMES:**

Students that successfully complete this course will be able to:

1. Identify by sight and/or sound 30 bird species found in of Alberta, including species listed by provincial and/or federal agencies. Special emphasis will be placed on species that breed in, or migrate through, the boreal forest of northern Alberta.
2. Identify by sight, tracks, scat and, where applicable, sound, 25 species of large and small mammals found in Alberta. Emphasis will be placed on species that are listed or managed by provincial and/or federal agencies. Species will include boreal caribou and big brown bats.
3. Identify by sight and, where applicable, sound, all 18 amphibian and reptile species found in Alberta with special emphasis on provincially and/or federally listed species.

4. Identify by sight 10 species of fish found in Alberta, with special emphasis on provincially and/or federally listed species, and species of significance to anglers and First Nations people.
5. Identify 10 major groups of aquatic invertebrates by sight and through the use of diagnostic keys in the lab. Special emphasis will be placed on taxa that are used as indicators of ecosystem functioning and health, for example in wetland reclamation projects. Students will be responsible for collecting and preparing a collection of properly identified aquatic invertebrates.
6. Link all species referred to in #1 - #5 above to species range maps and habitat types. This will involve a general sense of the ecology each of the species, and as a result, an ability to group species into species assemblages one might expect to encounter at a particular habitat (e.g., a Jack Pine stand versus a wetland)
7. Use field guides to identify wildlife seen in the field but not immediately recognized. This will be accomplished by knowing which distinguishing characteristics to look for in these kinds of situations (e.g. shape of head, size of track, wing plumage, etc.)
8. Be technically skilled in the use of binoculars, dissecting scopes, field guides, and other equipment used for identifying wildlife.

### REQUIRED RESOURCES:

Students will be required to purchase a variety of field guides including *current* bird, mammal and fish field guides. Students will receive instruction on the types and sources of field guides on the first day of class. All of the recommended field guides mentioned below are widely available in local stores and through online retailers.

Recommended bird guides include National Geographic's, Peterson's for western North American birds, or Sibley's; avoid field guides for birds that use photographs.

The Peterson series of guides is recommended for mammals and for western amphibians and reptiles.

Lone Pine's Fish of Alberta is recommended for fish.

See below regarding the book *Aquatic Invertebrates of Alberta*.

Each student will need their own pair of binoculars for use throughout the course, and other courses in the program. Inexpensive "pocket sized" binoculars are **STRONGLY DISCOURAGED** because they are too dark (lens diameter too small) and the optics too poor to allow for decent wildlife identification. Magnification of at least 7x and lens diameter of at least 42 mm is strongly recommended (this would appear as "7x42" on the binocular's specifications). Additional instruction on purchasing binoculars will be given the first day of class; students will be expected to have their own binoculars by the end of the first week of class.

Several online resources will also be used, including, but not limited to:

Cornell's fantastic online bird identification website  
<http://www.allaboutbirds.org/guide/search>

Government of Alberta’s portal for information on provincially listed wildlife species  
<http://www.srd.alberta.ca/FishWildlife/SpeciesAtRisk/Default.aspx>

Government of Canada’s portal of information on federally listed wildlife species  
[http://www.sararegistry.gc.ca/default\\_e.cfm](http://www.sararegistry.gc.ca/default_e.cfm)

Aquatic Invertebrates of Alberta – digitized version of a book we will have access to in the lab  
[http://sunsite.ualberta.ca/Projects/Aquatic\\_Invertebrates/](http://sunsite.ualberta.ca/Projects/Aquatic_Invertebrates/)

## TOPICS TO BE COVERED:

### **Please Note:**

This course outline may be modified to facilitate unforeseen time constraints. Time allotted to each topic will vary depending on depth and complexity of the material but in general expect 2-3 weeks/topic.

Topic 1	Overview: The overview is intended to familiarize students to a number of concepts they will encounter throughout the course. It is intended to enable students to delve into the taxon-specific topics that follow. Overview topics will include: 1) Introduction to common wildlife identification techniques in the field and lab including use of common equipment (e.g., binoculars) and field guides. 2) Review of scientific nomenclature and classification schemes, and where to obtain current information on scientific names.
Topic 2	Identification of birds (sight and sound)
Topic 3	Identification of mammals (sight, sound, tracks & scat)
Topic 4	Identification of amphibians, reptiles (sight, and where applicable, sound)
Topic 5	Identification of fish (sight)
Topic 6	Identification of aquatic invertebrates (sight, use of keys, preservation techniques)

## MOODLE and KEYANO EMAIL:

Moodle is at <http://ilearn.keyano.ca>

This course is supported through Moodle. Assignments, readings, handouts, etc will be posted on Moodle. It is expected that you will be regularly visiting the our course page and that you are able to send and received messages through Moodle. You must ensure your account is operational and that you are familiar with how to navigate Moodle by the end of the FIRST WEEK OF CLASSES.

Similarly, you must ensure your KEYANO email is operational and you must check it regularly – twice a day is recommended. I will not use your personal email addresses (gmail, yahoo, etc) for a plethora of liability, security and confidentiality reasons.

**CELL PHONES and other electronic devices:**

Except by express permission of the instructor,

- a) cell phones must be turned off and unavailable for use during class
- b) cell phones and other electronic devices must be turned off and stored in a designated area during all exams

**EVALUATION:**

Assignment	Percentage	Due Date
Lab Assignments	30%	announced in lab throughout the semester
Mid-term	30%	Wed 31 Oct 2012
Final Examination	40%	set by Registrar's Office

**GOOD ATTENDANCE AND GOOD GRADES ARE TIGHTLY CORRELATED**

Regular attendance is expected and that fact will be reflected in the calibre and nature of assignments and exams. PowerPoint presentations should be thought of as study guides; you must take additional notes in class to do well.

Material presented by guest lecturers and material presented during student presentations will be included on exams.

Attendance will be taken in accord with department policy.

This will be accomplished by sign-in sheets distributed at the beginning of class/lab. Each student must enter their own information on the sign-in sheet. Failure to record your information on the sign-in sheets will be recorded as an absence.

**ASSIGNMENTS AND EXAMS**

It is YOUR responsibility to make sure you know when assignments are due, and when exams take place. Major exam dates are listed in this course outline. Assignments will be announced in class/lab.

You will have at least 1 week to complete assignments.

Assignments are due at the start of class on the day they are due. Assignments are automatically late if not handed in when asked for at the start of class.

Late assignments will be penalized 20% per day late and will not be accepted if more than 5 days late. Do not email any assignments to me. I won't open them; they will be deleted.

The lecture final exam will be cumulative.

Travel plans are NOT valid excuses for missing a final exam. Do not make plans to travel during the final lecture exam period (10 – 19 Dec 2012). Exams missed under these circumstances will not be accommodated and therefore completion of the course is not possible.

***Students who do not complete all the required work should not expect to pass the course.***

**GRADING SYSTEM:**

<b>Letter Grade</b>	<b>Description</b>	<b>Grade Points</b>
<b>A+</b>		<b>4</b>
<b>A</b>	Excellent	<b>4</b>
<b>A-</b>		<b>3.7</b>
<b>B+</b>		<b>3.3</b>
<b>B</b>	Good	<b>3</b>
<b>B-</b>		<b>2.7</b>
<b>C+</b>		<b>2.3</b>
<b>C</b>	Satisfactory	<b>2</b>
<b>C-</b>		<b>1.7</b>
<b>D+</b>		<b>1.3</b>
<b>D</b>	Minimal Pass	<b>1</b>
<b>F</b>	Failure	<b>0</b>

**A minimum grade of ‘C-‘ is required for progression.**

**IMPORTANT DATES Fall 2012:**

Tues 18 Sept	Courses dropped after this date will be designated “W”. (A withdrawal (W) is not reflected in your GPA)
Fri 26 Oct	Courses dropped after this date will be designated “WF”. (A withdrawal failure (WF) counts as a 0 in your GPA)
<b>Wed 31 Oct</b>	<b>Mid-Term Exam</b>
Fri 7 Dec	Last day of classes
<b>10 – 19 Dec</b>	<b>Final Exams college-wide; date set by Registrar’s office</b>

**COLLEGE POLICIES****Equality, Equity and Respect**

The Keyano College is committed to providing an environment of equality, equity and respect for all people within the College community. All members of this community are considered partners in developing teaching and learning contexts that are welcoming to all. Faculty, staff, and students are encouraged to use inclusive language to create a classroom atmosphere in which students' experiences and views are treated with equal respect and valued in relation to their gender, ethnic and cultural background, and sexual orientation.

*Students should consult:*

[http://www.keyano.ca/Committees/IRA/Individual\\_Rights\\_Policy.asp](http://www.keyano.ca/Committees/IRA/Individual_Rights_Policy.asp)

## Plagiarism and Cheating

Every student expects to be treated and evaluated fairly in a course. Plagiarism and cheating robs everyone of this right.

No student may submit words, ideas or data of another student or person as his or her own in any writing, project, assignment, quiz, electronic presentation, exam etc. Any work used that is not the student's own must be clearly cited as belonging to someone else. There are penalties for using other's work and not citing it. The Student's Rights & Responsibilities document clearly outlines these penalties and the appeal process.

- No learner can obtain information from another student during an exam.
- No learner can bring unauthorized information (paper or electronic) into an exam or quiz.
- No student can submit work done in another course for grading in this course without the written prior approval of the course instructor.
- No student can submit copyright protected or commercially produced materials as part or all of an assignment without proper citation & permission.

CHEATING AND PLAGIARISM WILL BE DEALT WITH SWIFTLY AND DECISIVELY.

All assignments and exams are to be the product of each student's own work. A grade of zero will be given for plagiarized assignments and more serious penalties may apply.

Do not share your assignments, nor loan them to anyone else – students that allow their work to be plagiarized are guilty of academic misconduct to the exact same extent as students that do the copying and “donor” students will be treated as such in terms of disciplinary action.

## Student Rights & Responsibilities

Students should consult the Keyano College Credit Calendar or online at:

<http://www.keyano.ca/Media/Collections/Calendars/Keyano.Calendar1112-10-full.pdf>

## Specialized Supports and Duty to Accommodate

*Disability Support Services: Learner Assistance Program*

If you have a documented disability or you think that you would benefit from some assistance from a Disabilities Counsellor, please call or visit the Disability Supports Office 780-792-5608 to book an appointment (across from the library). Services and accommodations are intended to assist you in your program of study, while maintaining the academic standards of Keyano College. We can be of assistance to you in disclosing your disability to your instructor, providing accommodations, and supporting your overall success at Keyano College.

*Specialized Supports and Duty to Accommodate*

Specialized Support and Duty to Accommodate are aligned with the office of Disability Support Services: Learner Assistance Program (LAP) guided by federal and provincial human rights legislation, and defined by a number of Keyano College policies. Keyano College is obligated by legislation to provide disability-related accommodations to students with identified disabilities to the point of undue hardship.



**Course Outline**

**ENVIRONMENTAL  
TECHNOLOGY**

**[ENVT 170]  
[Animal Identification]  
Fall, 2012**

**3 CREDITS  
4 HOURS PER WEEK**

---

**Danna Schock, Instructor**

---

**Date**

**Reviewed and approved by:**

---

**Louis Dingley, Chairperson**

---

**Date**

---

**Guy Harmer, Dean**

---

**Date**