ERS 283 Spring 2020 [DRAFT SYLLABUS]

[Note that this is a 0.5 unit adaptation of ERS283 because no in-person course activities are permitted in Spring 2020 due to COVID-19]

Ontario Natural History: Species and Patterns

I. Course information

Professor  Brendon Larson, Ph.D. [www.brendonlarson.com]
Contact  Email is the best way to contact me: blarson “at” uwaterloo.ca
Office hrs  TBD
Graduate T.A.  TBD. If you have any questions about grading, please contact your TA.
LEARN  Lessons, readings, quizzes, discussion forums, dropboxes
ii) Hand lens/loupe/magnifier (at least 10X). There are magnification apps, but I recommend buying a real hand lense to use for course assignments and as a good tool to have. You can find them on amazon for close to $10 (e.g.,  
https://www.amazon.ca/Yasumai-Magnifier-Magnification-Folding-Jewelers/dp/B06Y3TTXML/ , though I unfortunately can’t endorse that specific model).
iii) See below for other mandatory readings, which will be available on LEARN.
II. Course overview

ERS283 is a study of natural history, which may be broadly defined as the observational study of the natural world. This doesn’t have much to do with how we normally think of history, because “history” in this context retains its archaic meaning of “description” or “analytic inquiry.” It follows that a naturalist (someone who does natural history) is someone who “studies the world by observing plants and animals directly (Bartholomew 1986, p. 326).” By studying nature carefully over a period of time, naturalists obtain a general knowledge of local biodiversity.

While some biologists might denigrate natural history as a form of inquiry, many increasingly recognize its importance (e.g., Bartholomew 1986; Noss 1996; Dayton 2003; Greene 2005). Natural history undergirds the search for general ecological and evolutionary theories; as such, it has been characterized as the search for order in nature (Farber 2000). Darwin himself is often considered an eminent natural historian because he built careful observations of organisms in nature into a general theory of evolution. Natural history also provides critical knowledge for applied conservation and management because these often rely as much on observing the specifics of locales and their species as on general theories. And perhaps most important of all, naturalists can share their knowledge and appreciation with others, thereby promoting conservation values within society. Many of us who have an interest in biology and/or the environment have encountered an inspiring naturalist in our lives.

The practice of natural history develops a sensitivity to organisms in nature. In this sense, people have always done it because it is simply “a practice of intentional, focused attentiveness and receptivity to the more-than-human world (Fleischner 2005, p. 10).” Unfortunately, it is not something that most of us practice very often.

In ERS283, you should develop an appreciation for natural history, though the online offering in Spring 2020 will limit our ability to engage with biodiversity in a first-hand manner. Instead, the focus will be reading chapters from our textbook on natural history “patterns” and completing associated assignments and quizzes on a weekly basis on LEARN.


III. Course learning outcomes

By the end of this course, you should be able to recognize, describe and explain common ecological, behavioral and taxonomic patterns in the natural world.

I would like this course to provide a building block for your life-long love of learning about the place(s) where you live and their inhabitants. The course is meant to instill a sense of appreciation and knowledge of how to inquire that you can apply anywhere. It will help create a basis for subsequent inquiry within nearly any realm of nature study from art to biological science.

I have designed the course so that the teaching and learning activities, and course assessment, align with the learning outcomes (within an online context).
### IV. Course activities

The following table provides a calendar-based summary of course components. Please see below for further details.

<table>
<thead>
<tr>
<th>Week starting ...</th>
<th>Textbook readings</th>
<th>Other readings &amp; nature activities</th>
<th>Quiz</th>
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<tbody>
<tr>
<td>1. May 11</td>
<td>Introduction Ch. 1, <em>Plants</em> – Flowers and seeds</td>
<td><strong>Syllabus</strong>; Fleischner 2005</td>
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<td>2. May 18</td>
<td>Ch. 2, Trees</td>
<td></td>
<td>Ch. 1 &amp; 2</td>
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<tr>
<td>3. May 25</td>
<td>Ch. 3, Plant features (*)3.14,15</td>
<td>Trees and plant families (LEARN)</td>
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<tr>
<td>4. June 1</td>
<td>Ch. 4, <em>Animals</em> – Color and pattern</td>
<td></td>
<td>Ch. 3 &amp; 4</td>
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<td>5. June 8</td>
<td>Ch. 5, Ecology and behavior</td>
<td>Bird songs (LEARN)</td>
<td></td>
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<td>6. June 15</td>
<td>Ch. 6, Birds</td>
<td></td>
<td>Ch. 5 &amp; 6</td>
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<tr>
<td>7. June 22</td>
<td>Ch. 7, Insects</td>
<td>Common insect orders (LEARN)</td>
<td></td>
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<tr>
<td>8. June 29</td>
<td>Ch. 9, <em>Habitats</em> – Forests (*)9.1,2,16,17</td>
<td></td>
<td>Ch. 7 &amp; 9</td>
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<td>9. July 6</td>
<td>Ch. 10, Fields and meadows</td>
<td>TBD (LEARN)</td>
<td></td>
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<tr>
<td>10. July 13</td>
<td>Ch. 12, Water and wetlands (*)12.12, 12.13</td>
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<td>Ch. 10 &amp; 12</td>
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</table>

*Note: Each week, you will submit a reading response and substantive question.*
V. Course assessment/grading scheme

Weekly assignments:
10%  Weekly question (10 questions @ 1% each). Each week you must submit one substantive question about the week's readings to a LEARN discussion forum. See the rubric in LEARN.

30%  Weekly reading assignment (10 assignments @ 3% each). For these assignments, which are limited to 250 words, you must share a personal experience of yours that relates to a pattern you read about in one of the sections in the text during the week (and please indicate which section). For example, I might write about my research with buzz-pollination by bumblebees in the Muskoka region (corresponding to section 1.1 in text), or about what my daughter and I learned by watching Californian scrub jays hide the peanuts we fed them each morning (section 1.10). For this component, I'd like you to demonstrate precisely how your experience relates to and perhaps expands upon the particular pattern and clearly and convincingly convey your experience with as much detail and visual imagery as you can. See “model response” and rubric in LEARN.

Bi-weekly assignments (see schedule above):
20%  Bi-weekly nature activities (4 activities @ 5% each). These assignments will be posted in LEARN and will require you to engage with learning about local species. Note that these assignments may have to be adapted based on COVID-19-based restrictions on movement. At present, I assume that some local pedestrian movement will be possible, though we will keep tabs on the situation and please let me know if you face any local/personal restrictions and we will seek a way to accommodate you.

25%  Bi-weekly quizzes (5 quizzes in LEARN @ 5% each). These are open-book, multiple-choice quizzes covering the material in two chapters of the textbook. I will open them at noon on Thursday every other week (see course schedule). You will have one hour to complete each quiz and it will be due on Sunday night at 11:55pm (so begin it by Sunday at 11pm). You must complete it on your own (see section on “academic integrity” below).

Final paper
15%  Final paper. 5 pages on topic of your choice related to course readings. Due July 31 at 11:55pm. Further details: TBD.
VI. Course policies

This syllabus is a contract between us, so you must abide by the policies and schemes laid out here (as will I, for my part). If you have any questions or concerns, please speak with me as soon as possible.

Academic integrity and offences

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility (http://uwaterloo.ca/academicintegrity/Students/index.html). You are expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for your actions. If you are unsure whether an action constitutes an offence, or need help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration, please complete the tutorial at http://www.lib.uwaterloo.ca/ail and come and talk with me. Note, in particular, that the LEARN quizzes must represent your own work. If you wish to quote material in your assignments, you must place it in quotation marks (or paraphrase it in your own words) and cite the source; otherwise, it would be plagiarism.

When misconduct has been detected, disciplinary penalties will be imposed under Policy 71 – Student Discipline (http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm). For information on categories of offences and types of penalties, refer to Policy 71. Within the Faculty of Environment, those committing academic offences (e.g. cheating, plagiarism) will be placed on disciplinary probation and will be subject to penalties that may include a grade of 0 on affected course elements, 0 on the course, suspension, or expulsion.

AccessAbility

AccessAbility Services (https://uwaterloo.ca/accessability-services), located in Needles Hall – Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of the academic term.

Appeals and grievance

A decision made or penalty imposed under Policy 70 - Student Petitions and Grievances (other than a petition) or Policy 71 – (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm.

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. See Policy 70 - Student Petitions and Grievances, Section 4, www.adm.uwaterloo.ca/infosec/Policies/policy70.htm. When in doubt please contact your Undergraduate Advisor.

Assignment submission

Assignments must be submitted using LEARN by 11:55pm on the due date (see above). I will only accept late assignments/projects/quizzes if you arrange late submission with me at least three days in advance of the due date (or if you have a doctor’s note or documented family emergency). Otherwise, your grade will be 0.

Each of your assignments must be double-spaced with Times New Roman font and have 1” margins all around, page numbers in the bottom right corner, and your name in the top right corner of p. 1. I will expect you to have thoroughly proof-read them so that they are free of typos and major errors; I strongly encourage you to have a close and trusted friend edit your final paper before you submit.

Intellectual property

Students should be aware that this course contains the intellectual property (IP) of their instructor, TA, and/or the University of Waterloo. Course materials and the IP contained therein are used to enhance a student’s educational experience. However, sharing this IP without the intellectual property owner’s permission is a violation of IP rights. For this reason, it is necessary to ask the instructor, TA and/or the University of Waterloo for permission before uploading and sharing the IP of others online (e.g., to an online repository). Permission from an instructor, TA or the University is also necessary before sharing the IP of others from completed courses with students taking the same/similar courses in subsequent terms/years. Please alert the instructor if you become aware of IP belonging to others (past or present) circulating, either through the student body or online. The IP owner deserves to know (and may have given consent).

Mental health

Along with the University of Waterloo and the Faculty of Environment and its Departments, I consider your well-being to be extremely important. We recognize that many students face health challenges, physical and/or emotional. Please note that help is available. Mental health is a serious issue for everyone and can affect your ability to do your best work. Counselling Services (www.uwaterloo.ca/counselling-services) is an inclusive, non-judgmental, and confidential space for anyone to seek support. They offer confidential counselling for a variety of areas including anxiety, depression, grief, relationship issues, sexuality, stress management, substance use, and much more.
Religious observances
Please email me at the beginning of term if you require special accommodation for religious observances that are not otherwise accounted for in the scheduling of classes and assignments.

TurnItIn
Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students’ submissions are stored on a U.S. server, and are subject to the USA PATRIOT ACT, 2001; therefore, students must be given an alternative (e.g., scaffolded assignment or annotated bibliography) if they are concerned about their privacy and/or security. Students will be due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin® in this course. Alternate Declaration in email to me by May 18, 2020, 11:55pm.

Unclaimed assignments
Unclaimed assignments will be retained until one month after term grades become official in Quest. After that time, they will be destroyed in compliance with UW’s confidential shredding procedures.

Writing
The Writing and Communication Centre (WCC) works with students as they develop their ideas, draft, and revise. Writing and communication specialists offer one-on-one support in planning assignments, synthesizing and citing research, organizing papers and reports, designing presentations and e-portfolios, and revising for clarity and coherence. You can make multiple appointments throughout the term, or you can drop in at the Library for quick questions or feedback. To book a 25- or 50-minute appointment and to see drop-in hours, visit uwaterloo.ca/wcc.