Oklahoma State University Dept. of Natural Resource Ecology and Management  
Introduction to Natural History (NREM 1014)  
Spring 2019 - 4 Credits  
**Last Updated January 23, 2019**

**Instructor**  
**Caitlin Laughlin, MS**  
Email: caitlin.laughlin@okstate.edu  
Office Hours: Monday 1:30-3:30pm or by appointment in 005AA Ag Hall  
Online office hours to be determined by majority vote.

**When and Where**  
**Lecture**  
Tuesdays and Thursdays, 2:00pm – 3:15pm, LSW 103

<table>
<thead>
<tr>
<th><strong>Lab Sections</strong></th>
<th><strong>Teaching Assistants</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuesday Lab</strong></td>
<td>MaryKate Higginbotham</td>
</tr>
<tr>
<td>3:30pm – 5:20pm</td>
<td>Email: <a href="mailto:marykate.higginbotham@okstate.edu">marykate.higginbotham@okstate.edu</a></td>
</tr>
<tr>
<td>Ag Hall 169</td>
<td>Office Hours: TBA</td>
</tr>
<tr>
<td><strong>Thursday Lab</strong></td>
<td>Brittany Simons</td>
</tr>
<tr>
<td>3:30pm – 5:20pm</td>
<td>Email: <a href="mailto:brittany.simons@okstate.edu">brittany.simons@okstate.edu</a></td>
</tr>
<tr>
<td>Ag Hall 169</td>
<td>Office Hours: TBA in Ag Hall 005</td>
</tr>
<tr>
<td><strong>Friday Lab</strong></td>
<td>Brittany Simons</td>
</tr>
<tr>
<td>8:30am – 10:20am</td>
<td>Email: <a href="mailto:brittany.simons@okstate.edu">brittany.simons@okstate.edu</a></td>
</tr>
<tr>
<td>Ag Hall 169</td>
<td>Office Hours: TBA in Ag Hall 005</td>
</tr>
</tbody>
</table>

**Wellness Statement**  
You are important to me. If at any time you feel that you need to talk or that there is something you are unable to manage about college life, please see me. We can discuss your struggles, and if you need additional help, I can refer you to the appropriate service. Do not let your physical or mental health suffer. **Being a good student means caring for yourself as much as you care about your grade.**

**Class Attendance**  
Students are held accountable for all material covered in the course despite valid reasons for absence from class. **If you miss a class, get notes from another student.** Note that there are three (3) days of unexcused personal leave allowed for each student (12% of class instruction days!). After that amount has been exceeded, 3 points will be deducted from your participation grade for each day missed.

**Laboratory Etiquette and Attendance**  
Be on time. Count on lab taking the whole time. Dress appropriately for outdoor labs. Lab attendance makes up the equivalent of one exam in this class. Please show up.
Email Policy
Email is a professional form of communication with your teachers. Please include:

- A greeting, including who you are addressing (good: “Hello Caitlin,” bad: “hey”)
- A reference to the course in the subject line or in the body of the email
- Complete sentences, unless in a bulleted list, including capitalizations, etc.
- Your full name at the end (there’s usually more than one Mike or Sarah)
- Relevant documentation should be both attached and referenced in the text (“I have attached a photo of the doctor’s note for my excused absence.”)

College is the perfect time to practice the habits of professionalism before the stakes are high. It is good policy to be both specific and polite when asking for something. A common request is for my lecture notes. I do not lecture off of prepared notes, so please ask your fellow students for information regarding classes you missed.

Required Materials
A blank journal. Separate from your class notes. Instructions will be provided in lab.

Course Catalog Description
“The study of living organisms especially their origins, life histories, behaviors, conservation, and unique adaptations for reproducing and relating to their environment. Laboratory emphasis is on observation and investigation of the diversity and adaptations of living organisms.” Worth a total of 4 credit hours composed of 3 lecture hours and 2 lab hours per week.

Grading Scale

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
<th>Percent of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm 1</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>Natural History Journal Set # 1</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>Natural History Journal Set # 2</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>Natural History Journal Set # 3</td>
<td>30</td>
<td>10 %</td>
</tr>
<tr>
<td>Lab Research Project</td>
<td>15</td>
<td>5 %</td>
</tr>
<tr>
<td>In-class Participation &amp; Assignments</td>
<td>60</td>
<td>20 %</td>
</tr>
<tr>
<td>Lab Attendance &amp; Quizzes</td>
<td>45</td>
<td>15 %</td>
</tr>
<tr>
<td>Botanic Garden Scavenger Hunt</td>
<td>up to 3</td>
<td>up to 1%</td>
</tr>
<tr>
<td>Extra Credit Footprint Reflection</td>
<td>up to 15</td>
<td>up to 5%</td>
</tr>
<tr>
<td>Other Extra Credit</td>
<td>up to 3</td>
<td>up to 1%</td>
</tr>
</tbody>
</table>

Total up to 321 points            Total up to 107%

In points: A = 300-270; B = 240-269; C = 210-239; D = 178-209; F = 177 or less
In percentages: A = 100-90; B = 80-89; C = 70-79; D = 60-69; F = 59 or less
F! = Failing, academic dishonesty violation(s) (plagiarism, cheating, etc.)
Statute of Limitations
If you have any problems with how something was graded, you have until the next scheduled due date of the same assignment type to resolve them. For a journal grade, you have until the next time journals are due, for an exam, you have until the next exam, etc.

Academic Integrity
Please do not cheat in this class. It reflects poorly on you and is unpleasant for everyone involved. As indicated in university guidelines, the standard of evidence for reporting academic dishonesty is “more likely than not.” I am required by the university to report you for possible academic discipline. I am not permitted to “work it out between us.” It is the job of each student to read the OSU policies on academic dishonesty. Policies have recently changed and this is a reminder of the different levels of reportable academic integrity violations (which then go on your transcript and permanent conduct record at OSU, influencing your ability to get jobs, etc.):

A) Admonition. Consequences include a warning issued by instruction with grade reduction and student is reported to university officials. Violations leading to an admonition include collaboration on minor homework assignments that are supposed to be independent.

B) Level One Sanction. Consequences include a grade of zero for that assignment/exam and student is reported to university officials. Violations leading to this include, but are not limited to, cheating on a quiz or minor assignment, working in a group when asked to work independently, fabricating an attendance record for another student who is not present or asking another student to do so, etc.

C) Level Two Sanction. Consequences include being awarded an “F!” grade for the entire course and student is reported to university officials. Violations leading to this include, but are not limited to, collaboration on major homework assignments that are supposed to be independent, cheating on an exam or major assignment or helping another person to cheat, making up laboratory data, inappropriately sharing or using work on an assignment, etc.

Adapted from OSU Academic Integrity FAQ, https://academicintegrity.okstate.edu/

In short, please don’t violate your own academic integrity. You’re better than that and it just isn’t worth the consequences.

Exams
Each of the two midterm exams and the final will consist of a combination of some of the following question styles: matching vocabulary and definitions, multiple choice (very few), fill in the blanks (most), and short answers (most). Exams will be partially cumulative; in addition to many questions on new material, there will be a few questions on material covered in prior exams. The final exam will be cumulative: approximately 75% of the final exam questions will cover material after second midterm, whereas the other 25% will be on material prior to the second exam.

Missed Exams
Midterm: There will no makeups for the midterm exams. If you need to miss one midterm exam due to an excused absence (illness, death in the family, etc.), you are covered by “disaster
insurance.” I will substitute the grade you earn on the Final Exam for the grade of the exam you have missed. Let’s say you miss exam 2 (worth 100 pts) and earn a 92% on the final exam. I will retroactively enter 92% (92 out of 100 possible points) as your exam 2 score. This applies, as long as you provide me with valid evidence of excused absence (doctor’s note, etc.). However, if you miss two midterm exams with excused absences, you will get a score of 0 on the second missed exam.

**Final:** If you need to miss the Final Exam, then the default solution is that you will be assigned a grade of “Incomplete” for the course. We then work out between ourselves how best to have you fulfill your remaining obligation to the course.

**Midterm Exam Schedule (subject to change)**

<table>
<thead>
<tr>
<th>Midterm Exam</th>
<th>Date</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exam</td>
<td>February 21</td>
<td>Excused absence covered by disaster insurance.</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>April 4</td>
<td>Excused absence covered by disaster insurance.</td>
</tr>
<tr>
<td>Final Exam</td>
<td>May 9</td>
<td>NO disaster insurance! Do not miss this exam!</td>
</tr>
</tbody>
</table>

**Natural History Journal Due Dates**

- Set #1 due at end of lab on Feb 12, 14, 15 (Labs in Collection of Vertebrates this week.)
- Set #2 due at end of lab on March 12, 14, 15
- Set #3 due at end of lab on April 23, 25, 26

**Compassion Statement**

A core goal of higher education is to foster the development of whole human beings. To that end, we will practice compassion in this classroom. Rooted in a principled determination to transcend selfishness, compassion can break down political, dogmatic, ideological, and religious boundaries. Born of our deep interdependence, compassion is essential to human relationships and to a fulfilled humanity. It is a path to understanding, and is indispensable to the creation of a just, equitable, and peaceful global community. These values inform our interactions in this class.

Adapted from The Charter for Compassion, [https://www.charterforcompassion.org/](https://www.charterforcompassion.org/)

Honors contracts are unavailable for this course this semester.
# Course Schedules

**Last Updated January 23, 2019**

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading to be completed before class:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 15</td>
<td>Introduction to Natural History</td>
<td></td>
</tr>
<tr>
<td>Jan 17</td>
<td>History &amp; Role, Requirements of Life</td>
<td></td>
</tr>
<tr>
<td>Jan 22</td>
<td>Requirements of Life and Scale</td>
<td></td>
</tr>
<tr>
<td>Jan 24</td>
<td>Biology Review</td>
<td>Bear, pg 17</td>
</tr>
<tr>
<td>Jan 29</td>
<td>Natural Selection</td>
<td></td>
</tr>
<tr>
<td>Jan 31</td>
<td>Natural Selection, Artificial Selection, &amp; Evolution</td>
<td>Porcupine, pg 229</td>
</tr>
<tr>
<td>Feb 5</td>
<td>Evidence and Student-Driven Questions</td>
<td></td>
</tr>
<tr>
<td>Feb 7</td>
<td>Bacteria, Speciation, and Biodiversity</td>
<td>Sea Lion, pg 252</td>
</tr>
<tr>
<td>Feb 12</td>
<td>Open Oceans: Invertebrates</td>
<td>Squid, pg 290</td>
</tr>
<tr>
<td>Feb 14</td>
<td>Shallow Oceans: Invertebrates</td>
<td>Smelt, pg 221</td>
</tr>
<tr>
<td>Feb 19</td>
<td>Oceans and Invertebrates Continued</td>
<td></td>
</tr>
<tr>
<td><strong>Feb 21</strong></td>
<td><strong>First Lecture Exam (Midterm 1)</strong></td>
<td>Less expensive drop deadline</td>
</tr>
<tr>
<td>Feb 26</td>
<td>Adaptations: Microorganisms, Ferns, Plants</td>
<td></td>
</tr>
<tr>
<td>Feb 28</td>
<td>Species Interactions, Fungi</td>
<td>6 week grades due</td>
</tr>
<tr>
<td>Mar 5</td>
<td>Fish, Amphibians, Reptiles, Birds</td>
<td>Rattlesnake, pg 240</td>
</tr>
<tr>
<td>Mar 7</td>
<td>Tropical, Subtropical, Temperate Forests</td>
<td>Northern Spotted Owl, pg 114</td>
</tr>
<tr>
<td>Mar 12</td>
<td>Mediterranean, Deserts, Tundra, Grasslands</td>
<td></td>
</tr>
<tr>
<td>Mar 14</td>
<td>Taiga, Rivers &amp; Stream</td>
<td></td>
</tr>
<tr>
<td>Mar 19</td>
<td>Freshwater Wetlands &amp; Lakes</td>
<td>Optional: Rainbow Trout, pg 272</td>
</tr>
<tr>
<td>Mar 21</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
<tr>
<td>Mar 26</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
<tr>
<td>Mar 28</td>
<td>Sea Jellies, Sea Stars, Cephalopods, Arthropods</td>
<td>Red Spotted Toad, pg 259</td>
</tr>
<tr>
<td>Apr 2</td>
<td>Coral, Sponges, Mammals</td>
<td>Pronghorn Antelope, pg 171</td>
</tr>
<tr>
<td><strong>Apr 4</strong></td>
<td><strong>Second Lecture Exam (Midterm 2)</strong></td>
<td>-</td>
</tr>
<tr>
<td>Apr 9</td>
<td>Reproduction &amp; Migration, Birds</td>
<td>-</td>
</tr>
<tr>
<td>Apr 11</td>
<td>Threats to Biodiversity &amp; Extinction</td>
<td>Final drop deadline</td>
</tr>
<tr>
<td>Apr 16</td>
<td>Environmental Pollution</td>
<td>Human, pg 314</td>
</tr>
<tr>
<td>Apr 18</td>
<td>Global Change</td>
<td>-</td>
</tr>
<tr>
<td>Apr 23</td>
<td>Climate Change &amp; Extreme Events</td>
<td>Camel, pg 200</td>
</tr>
<tr>
<td>Apr 25</td>
<td>Introduced/Invasive Species</td>
<td>Coyote, pg 35</td>
</tr>
<tr>
<td>Apr 30</td>
<td>Infectious Diseases</td>
<td></td>
</tr>
<tr>
<td>May 2</td>
<td>Summary &amp; Exam Review</td>
<td></td>
</tr>
</tbody>
</table>

**Final Exam at 2pm on Thursday, May 9, in LSW 103**
<table>
<thead>
<tr>
<th>Lab Dates</th>
<th>Week</th>
<th>Lab Topics</th>
<th>Journal</th>
<th>Outdoor Lab?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 15, 17, 18</td>
<td>1</td>
<td>Introduction to Journaling and Observation</td>
<td>X</td>
<td>Yes</td>
</tr>
<tr>
<td>Jan 22, 24, 25</td>
<td>2</td>
<td>Field Study of Squirrels</td>
<td>X</td>
<td>Yes</td>
</tr>
<tr>
<td>Jan 29, 31, Feb 1</td>
<td>3</td>
<td>Observations Research Project 1</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Feb 5, 7, 8</td>
<td>4</td>
<td>FIELD TRIP Insect Adventure Tour; Meet THERE (map on website)</td>
<td>X</td>
<td>DUE</td>
</tr>
<tr>
<td>Feb 12, 14, 15</td>
<td>5</td>
<td>FIELD TRIP Collection of Vertebrates Tour; Meet in LSW lobby</td>
<td>X</td>
<td>DUE</td>
</tr>
<tr>
<td>Feb 19, 21, 22</td>
<td>6</td>
<td>Observations Research Project 2</td>
<td>X</td>
<td>Yes</td>
</tr>
<tr>
<td>Feb 26, 28, Mar 1</td>
<td>7</td>
<td>Biomes of Oklahoma</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Mar 5, 7, 8</td>
<td>8</td>
<td>Oklahoma Amphibians &amp; Reptiles</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mar 12, 14, 15</td>
<td>9</td>
<td>Observations Research Project 3</td>
<td>X</td>
<td>DUE</td>
</tr>
<tr>
<td>Mar 19, 21, 22</td>
<td>10</td>
<td>Spring Break, No Labs!</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mar 26, 28, 29</td>
<td>11</td>
<td>Oklahoma Mammals</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>April 2, 4, 5</td>
<td>12</td>
<td>Observations Research Project 4</td>
<td>X</td>
<td>Yes</td>
</tr>
<tr>
<td>April 9, 11, 12</td>
<td>13</td>
<td>FIELD TRIP OSU Botanic Garden; Meet THERE (map on website)</td>
<td>X</td>
<td>Yes</td>
</tr>
<tr>
<td>April 16, 18, 19</td>
<td>14</td>
<td>Oklahoma Birds</td>
<td>X</td>
<td>Yes</td>
</tr>
<tr>
<td>April 23, 25, 26</td>
<td>15</td>
<td>Observations Research Project Data Analysis</td>
<td>X</td>
<td>DUE</td>
</tr>
<tr>
<td>April 30, May 2, 3</td>
<td>16</td>
<td>Research Presentations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Laboratory Exercises are subject to change due to inclement weather conditions but are unlikely to do so. Plan on lab being outside and come prepared.

Conflicts with other university activities must be resolved prior to the conflict.