Biology 278 – Animal Behavior
Syllabus for SUMMER I 2017

Time and Place

Monday – Friday, 11:30am-1pm, Wilson 217
Class starts Wednesday, May 17th, and ends Monday, June 19th.
Final exam: Wednesday June 21, 11:30am-2:30pm, Wilson 217

Instructor

Dr. Spencer Ingley
Email: ingley@unc.edu
Phone: 352-278-2705
Office: 318 Wilson Hall
*Office Hours: For 1 hour after class on
Tuesday-Thursday, or by appointment
*Note: location may differ from my
primary office location

Teaching Assistant

Antonio Serrato
Email: serrato@unc.edu
Office: Genome Science Building 3001
Office hours: Monday 4-5pm or email for
appointment

Course Objectives

The course teaches the science of animal behavior. We will focus on what animals do, how
they do it, why they do it, and perhaps most importantly, how WE as scientists can be sure of
our information. That means we will spend a great deal of time discussing experimental
procedures and results. You will be challenged to understand the experiments and
conclusions and to think about them analytically. The field of animal behavior covers a wide
range of topics that have implications for a variety of other fields. My hope is that you will be
able to continue to make connections between animal behavior and other courses of study as
you continue your degree program.

Course Website

A website for BIOL 278 will be available through Sakai. It will be combined with the Sakai
page for BIOL 278 Lab. The syllabus itself and various other items will be posted throughout
the semester. I will also post lecture slides for you to use while studying and for taking notes
in class. My aim will be to post slides at least by the morning of the class. The slides are not
a substitute for class attendance, so please make every effort possible to attend each
lecture. Assigned readings (found below) will complement and add depth to our class
discussion. Our lectures will largely follow the flow of the text.

Textbooks, Software & Readings

There is one required text for the course:
Nordell & Valone 2016, Animal Behavior: Concepts, Methods, and Applications (2nd
bookstore).
Reading assignments are listed on the lecture schedule below (also available on Sakai). Additional readings, where applicable, will be posted on Sakai.

Course Prerequisites
There is one prerequisite for this course. To receive credit for this class, you must have already achieved a passing grade in BIOL 101 and 101L.

Homework assignments
We will have two homework assignments worth 10 points each. Each student will be assigned a lecture and a reading to write 5 study questions for. The questions will be sent to me via Sakai, I will edit them, and then post them anonymously for the class to use. When enrollment settles down, I will announce details of the assignments.

Quizzes
We will have three quizzes throughout the semester, each worth 10 points. Each quiz will focus on material covered in the lectures and reading leading up to the quiz (see schedule for lectures covered by each quiz). Slight modifications may be made if our lectures deviate from the written schedule, and I will be sure to make my expectations clear as we approach a quiz.

Exams
There will be two mid-term exams (100 points each) and a final exam (150 points). The final exam will be cumulative, but will be weighted towards material not covered on the first two exams. Exams will stress concepts, and they may contain multiple-choice, short answer, problem-solving, and essay questions. More details regarding the exam format will be provided in class prior to the exam date. I will also schedule and conduct a review session prior to each exam.

Please note that make-up exams will be given only at my discretion. To be eligible for a make-up exam, you must have an "official" excuse (i.e., a form from the Dean’s office). A note stating that you simply visited the health center will NOT qualify you for a make-up exam. Make-up exams may be given as oral exams.

Final Course Grade
Your final course grade will be based on:

- Exam 1 – 100 points (25% of final grade)
- Exam 2 – 100 points (25% of final grade)
- Homework – 20 points (5% of final grade)
- Quizzes – 30 points (7.5% of final grade)
- Final Exam – 150 points (37.5% of final grade)

Your course grade will be determined as follows:

- A final course average of 93 or above will earn you an A
- A final course average of 90 to 92 will earn you a grade no lower than A-
- A final course average of 87 to 89 will earn you a grade no lower than B+
- A final course average of 83 to 86 will earn you a grade no lower than B
A final course average of 80 to 82 will earn you a grade no lower than B-
A final course average of 77 to 79 will earn you a grade no lower than C+
A final course average of 73 to 76 will earn you a grade no lower than C
A final course average of 70 to 72 will earn you a grade no lower than C-
A final course average of 67 to 69 will earn you a grade no lower than D+
A final course average of 63 to 66 will earn you a grade no lower than D
A final course average of 60 to 62 will earn you a grade no lower than D-

*(student grading scheme)

Your final grade may be "curved" upward, depending on: 1) evidence of improvement in your exam performance, 2) the performance of your classmates, and 3) your participation in class.

BIO 278 Lecture, READING, and Exam Schedule
Summer 1 2017 (details are subject to change)

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Topic</th>
<th>Readings</th>
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<tr>
<td>May 17&lt;sup&gt;th&lt;/sup&gt;, Wednesday</td>
<td>Lecture 1</td>
<td>Introduction and History</td>
<td>Ch. 1 and 2</td>
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<td>May 18&lt;sup&gt;th&lt;/sup&gt;, Thursday</td>
<td>Lecture 2</td>
<td>Natural selection and Behavior</td>
<td>Ch. 3 and 4</td>
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<td>May 19&lt;sup&gt;th&lt;/sup&gt;, Friday</td>
<td>Lecture 3</td>
<td>Genetics/Evolution</td>
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<td>May 22&lt;sup&gt;nd&lt;/sup&gt;, Monday</td>
<td>Lecture 4</td>
<td>Sensory systems and behavior</td>
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<td>May 23&lt;sup&gt;rd&lt;/sup&gt;, Tuesday</td>
<td>Lecture 5</td>
<td>Communication</td>
<td>Ch. 6</td>
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<td>May 24&lt;sup&gt;th&lt;/sup&gt;, Wednesday</td>
<td>Lecture 6</td>
<td>Learning, Neuroethology, and Cognition</td>
<td>Ch. 7</td>
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<td>May 25&lt;sup&gt;th&lt;/sup&gt;, Thursday</td>
<td>Lecture 7</td>
<td>Learning: Cultural transmission</td>
<td>Ch. 7</td>
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<td>May 26&lt;sup&gt;th&lt;/sup&gt;, Friday</td>
<td>Exam 1  &lt;br&gt;(L. 1-7)</td>
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<td>May 29&lt;sup&gt;th&lt;/sup&gt;, Monday</td>
<td>No class – Memorial Day</td>
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<tr>
<td>May 30&lt;sup&gt;th&lt;/sup&gt;, Tuesday</td>
<td>Lecture 8</td>
<td>Foraging Behavior</td>
<td>Ch. 5, pp 89-103; Ch. 8</td>
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<td>May 31&lt;sup&gt;st&lt;/sup&gt;, Wednesday</td>
<td>Lecture 9</td>
<td>Foraging/Antipredator Defenses</td>
<td>Ch. 8, 9</td>
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<tr>
<td>June 1&lt;sup&gt;st&lt;/sup&gt;, Thursday</td>
<td>Lecture 10</td>
<td>Antipredator Defenses</td>
<td>Ch. 9</td>
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<td>June 2&lt;sup&gt;nd&lt;/sup&gt;, Friday</td>
<td>Lecture 11</td>
<td>Migration and Dispersal</td>
<td>Ch. 10</td>
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<td>Date</td>
<td>Lecture</td>
<td>Topic</td>
<td>Chapter</td>
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<td>June 5&lt;sup&gt;th&lt;/sup&gt;, Monday</td>
<td>Lecture 12 Quiz 2 (L. 8-11)</td>
<td>Habitat selection, territoriality, and aggression</td>
<td>Ch. 11</td>
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<td>June 6&lt;sup&gt;th&lt;/sup&gt;, Tuesday</td>
<td>Lecture 13</td>
<td>Mate competition/choice, sexual selection</td>
<td>Ch. 12</td>
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<td>June 7&lt;sup&gt;th&lt;/sup&gt;, Wednesday</td>
<td>Lecture 14</td>
<td>Mate choice</td>
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<td>June 8&lt;sup&gt;th&lt;/sup&gt;, Thursday</td>
<td>Lecture 15</td>
<td>Mating systems</td>
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<td>June 9&lt;sup&gt;th&lt;/sup&gt;, Friday</td>
<td>Lecture 16</td>
<td>Parental care</td>
<td>Ch. 14</td>
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<td>June 12&lt;sup&gt;th&lt;/sup&gt;, Monday</td>
<td>Exam 2 (L. 8-16)</td>
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<td>June 13&lt;sup&gt;th&lt;/sup&gt;, Tuesday</td>
<td>Lecture 17</td>
<td>Social behavior: Cost, Benefits, conflict resolution</td>
<td>Ch. 15</td>
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<td>June 14&lt;sup&gt;th&lt;/sup&gt;, Wednesday</td>
<td>Lecture 18</td>
<td>Social behavior: communication &amp; play</td>
<td>Ch. 15</td>
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<td>June 15&lt;sup&gt;th&lt;/sup&gt;, Thursday</td>
<td>Lecture 19 Quiz 3 (L. 16-18)</td>
<td>Selection above the individual (Social Spiders)</td>
<td>Reading TBA</td>
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<td>June 16&lt;sup&gt;th&lt;/sup&gt;, Friday</td>
<td>Lecture 20</td>
<td>Cooperation &amp; Altruism</td>
<td>Ch. 15</td>
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<td>June 19&lt;sup&gt;th&lt;/sup&gt;, Monday</td>
<td>Lecture 21</td>
<td>Human Behavior</td>
<td>Reading TBA</td>
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<td>June 20&lt;sup&gt;th&lt;/sup&gt;, Tuesday</td>
<td>No class</td>
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<tr>
<td>June 21&lt;sup&gt;st&lt;/sup&gt;, Wednesday</td>
<td>Final exam (cumulative)</td>
<td>11:30am-2:30pm</td>
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