

**PCB 4683L (1 credit hour)**

**Section 11:** Monday 8:30am – 10:20am

**Population Biology and Evolution Lab  
Fall 2018**

**Section 12:** Monday 10:30am – 12:20pm

**Section 13:** Monday 12:30-2:20 pm

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**Amber Bass (Section 11 and 12)**

**Office:** BL 442

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**Office Hours:** Mon 1:30 – 4:30 pm or  
by appointment

**Jacob LaFond (Section 13)**

**Office:** BL 425

**E-mail:** [lafondj@knights.ucf.edu](mailto:lafondj@knights.ucf.edu)

**Office Hours:** Wed 3:00 pm – 4:30 pm &  
Thurs 12:00 pm – 1:30 pm  
or by appointment

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**Course objective:** This course is intended to supplement **Evolutionary Biology** (PCB 4683). The course consists of 3 parts: Hands on activities and hypothesis testing, recitation for core concepts from the lecture, and utilizing primary literature to explore contemporary evolutionary studies. Activities and labs are dispersed throughout the course while recitations are scheduled to occur before the core material appears on the lecture exams. In the latter portions of the lab we will use primary literature to see what type of work is occurring now in the field of evolutionary biology.

**Prerequisites:** Grade of “C” or better in undergraduate genetics and ecology courses or consent of instructor. A good understanding of basic genetics is vitally important to your success in this class. In addition, the student must either have had Evolutionary Biology (PCB 4683) or be currently enrolled in that class.

**Website:** Information will be posted on the lab Webcourses regularly. Please look here for all assignments, practice problem sets, and papers for the second half of the semester.

**Textbook:** None. However, we recommend having access to the course textbook: either Futuyma. 2013. *Evolution 3<sup>rd</sup> edition*. Sinauer Associates OR Freeman and Herron. 2007. *Evolutionary Analysis 4<sup>th</sup> (or 5<sup>th</sup>) edition*. Prentice Hall, Inc.

**Support items:** Required readings, sample math problems, and supplementary materials will be made available through the class website, and can be printed out on any campus or home computer. You are required to have your own copy of each required reading. A standard (non-programmable) scientific calculator will be required. Use of programmable calculators will not be allowed on tests or quizzes, so it is absolutely essential that you obtain a non-programmable calculator well before the first test.

**Evaluation:**

<b>Assignment</b>	<b>Maximum Points</b>
Lab Activities (5)	50
Midterm	30
Paper Presentations	30
Lab Report	<u>40</u>
<b>Total</b>	<b>150</b>

**Grading scale:** The following scale will be used to assign course grades. Grades will not be curved. In the event of academic dishonesty, we have the option of assigning a Z designation (see <http://z.ucf.edu/>).

<b>Percentage</b>	<b>Letter Grade</b>
90.0-100	A
85.0-89.9	B+
80.0-84.9	B
75.0-79.9	C+
70.0-74.9	C
65.0-69.9	D+
60.0-64.9	D
<60.0	F

**Attendance:** You are required to attend all lab sessions. Supporting documents for an excused absence must be submitted during the next attended lab meeting. Excuses are subject to approval by Dr. Chase Mason, Amber Bass, Jacob LaFond, and the UCF Department of Biology. **One** unexcused absence is permitted during the semester, although points lost for this unexcused absence cannot be made up. **More than one unexcused absence will result in your failure of the course.** You are also expected to come to class **on time** and stay throughout the entire lab period.

**Makeup policy:** Do not miss exams for any reason. Makeup exams will be given only in very extenuating, well-documented circumstances. All makeup exams will be given at the end of the term and will be essay question format. There will be no makeup for the paper discussions, and discussion assignments will not be accepted beyond the scheduled deadline. There will be no makeup for missed quizzes or discussion periods.

**Cheating:** Cheating of any type, including plagiarism, will not be tolerated. Disciplinary action will be pursued to the fullest extent. Please consult the UCF “Golden Rule” policy.

**Expectations:** Students are expected to (1) attend all lab meetings, (2) arrive on time and stay for the entire class, (3) take part in discussions, (4) not talk outside of discussions, (5) turn off cell phones, pagers, and other electronic devices, (6) come to class prepared, (7) ask appropriate and thought provoking questions, and (8) study hard and try hard.

**Tentative schedule:** Please note that we reserve the right to change this schedule as is necessary to better suit the objectives of the course.

<b>Date</b>	<b>Week #</b>	<b>Topic</b>	<b>Type</b>	<b>Assignment DUE</b>
August 20	1	NO CLASS		
August 27	2	Natural Selection Lab	Lab Activity	Natural Selection Lab
September 3	3	NO CLASS – Labor Day		None
September 10	4	Phylogenetics 1	Lab Activity	Phylogenetics 1
September 17	5	Phylogenetics 2	Lab Activity	Phylogenetics 2
September 24	6	Hardy-Weinberg Equilibrium	Recitation	None
October 1	7	Migration, Mutation, Genetic drift, Selection	Recitation	None
<b>October 8</b>	<b>8</b>	<b>Exam</b>	<b>Exam</b>	<b>EXAM in class</b>
October 15	9	Populus Assignment	Lab Activity	Populus Assignment
October 22	10	Sexual Selection Lab	Lab Report	None
October 29	11	Paper Discussion	Primary Lit	Materials & Methods, Results due for Lab Report
November 5	12	Paper Discussion	Primary Lit	Discussions due for Lab Report
November 12	13	NO CLASS - Veteran's Day		
November 19	14	Paper Discussion	Primary Lit	Introduction due for Lab Report
November 26	15	Debate: Topics to be determined	Lab Activity	Abstract and Conclusion due for Lab Report
December 3	16	NO CLASS		<b>Lab Report Due</b>