

PCB 3044 L SYLLABUS – SPRING 2014

Labs Meet: Rm 305 or lot E4 – see schedule

Instructors: **Madison Hall** BIO 421, madison.hall@knights.ucf.edu
Office Hours: Mon: 11:30 – 1 pm, Wed: 11:30 – 1
Derek A. Woller **BIO 442**, dwoller@knights.ucf.edu
Office Hours: **Wed: 9-10:30 AM & Wed: 1-2:30 PM**

Text: Lab manual is **FREE**. It can be accessed through WebCourses. Alternatively, it can be located through myUCF: Login to the myUCF portal (<https://my.ucf.edu>) and click on the "Online Course Tools" tab to access the course.

Intended Audience: Biological Science majors, Science Education majors, Pre-professional students, and selected graduate students.

Course Description: This course is intended to provide a hands-on experience in conducting research in ecology. You will create 2 research reports during the semester: an individual report on a competition experiment, and a group report on the effects of prescribed fire on forest in the UCF Arboretum.

Course Prerequisites: You should have minimally taken BSC 2010C & BSC 2011C

Performance Evaluation:

Two Research Reports*	50.0 %
Summary papers (2 @5% each)	10.0
Other assignments (3 @5% each)	15.0
Plant ID quiz	10.0
Participation	<u>15.0</u>
Total =	100.0 %

Grade scale: A = 100-93.3, A- = 93.2-90, B+ = 89.9-86.7, B = 86.6-83.4, B- = 83.3-80, C+ = 79.9-76.7, C = 76.6-73.4, C- = 73.3-70, D+ = 69.9-66.7, D = 66.6-63.4, D- = 63.3-60, F < 59.9

* Fruit fly Competition lab report is individually authored and is worth 25%. The Forest report is group-authored and is also worth 25%.

All Research reports will be graded according to the scoring sheet provided to you in the lab manual.

Research Reports will be due TWO WEEKS after the lab in which it is announced that data are available to you (e.g., in lab or on the course web page).

Participation: You are expected to be a fully-cooperating member of lab teams. You will work together to collect data that you will share with the class for everyone to use in their research reports, as well as write two lab reports in small groups. As such, the grades of other students depend on you, too.

Daily (in-class): Class attendance and punctuality, your cooperation with group members to complete in-class assignments, and the lab instructor's independent observations or your participation will factor into this portion of your grade. Play nice, carry your load, and you'll do fine.

Attendance: Attendance is mandatory. Almost every lab is conducted with one or more group members; therefore, if you miss the lab, it not only affects you, but your group members as well. Everyone is allowed one excused absence. One absence after that will result in a 5% reduction of your final grade, a second absence will result in a 10% reduction in your final grade, and any more, you will fail the course.

We begin lab at the time that it is listed at myUCF. If you are more than 10 minutes late, you will be allowed to come into lab and receive participation points for the day; however, you will receive an absence for that day. **DON'T BE LATE!**

Late Policy: All assignments are due at the beginning of lab. If you do not turn in your assignment on time,

10% will be deducted from your assignment grade for each day that it is late. If you are absent on a day that an assignment is due, and you provide documentation, there will be no late penalty, but you must turn in your assignment as soon as possible. Late summary papers will not be accepted.

Your Responsibilities:

- **Read the lab manual *BEFORE* you come to class:** We will not waste time in lab lecturing about what you should have read in advance.
- **Assignments are to be submitted on WebCourses before the start of class on the day the assignment is due.**
- **Print needed instructions and data sheets for each week as needed.**
- Don't be late: all instructions are given within the first 10 minutes of class.
- ASK QUESTIONS – in class, via email, in office hours / appointments.
- THINK! Ecology forces us to go beyond memorizing, especially when doing research. This class is intended to teach you how to be independent and solve problems on your own before asking your TA.
- Cooperate with your team and others – many hands make less work, and 20% of your grade depends on your cooperative behavior.
- Dress for the job. **Wearing closed-toe shoes is MANDATORY on field days.** Be prepared to get sweaty and dirty while doing field work. Expect thorns, biting and stinging bugs, burrs, logs, brambles... you get the idea.
- Read and understand the UCF Rules for Student Conduct [<http://www.goldenrule.sdes.ucf.edu>] and UCF Academic Regulations and Procedures [http://www.ucf.edu/catalog/current/academic_regulations_and_procedures/index.html]: These rules apply to you and will be followed in the course.

Student Disabilities:

All reasonable accommodations will be made for disabilities documented through the Office of Student Disability Services (SRC 132; 407-823-2371).

Planned Lab Schedule (may change during the semester)

Meet at:	Week of:	Lab Topics	Lab Manual Chapter	Due
305	Jan 6/7	Introduction, Laboratory goals and safety	1, 2	
305	Jan 13/14	Hypothesis writing Methods section guidelines Set up fruit fly competition experiment	3.2, 5, 6	
	<i>Jan 20/21</i>	<i>No classes - Martin Luther King Jr. Day</i>		
305	Jan 27/28	Library tutorial Competition literature review Check Flies (1)	3	Methods section Draft hypotheses (for 1 Ex. credit pt.)
305	Feb 3/4	Paper discussion Results section guidelines Excel / statistics exercise Check Flies (2)	4, 5	Excel graphs (due in class) Summary paper – Budnik and Brncic 1974
E4	Feb 10/11	Arboretum vegetation hike Check Flies (3)	7	Results section
E4	Feb 17/18	Arboretum vegetation hike Check Flies (4)	7	Ex. credit quiz (in class)
E4	Feb 24/25	PLANT ID QUIZ Fire data collection starts Check Flies (5)	7	Fly data – due Friday!
	<i>Mar 3/4</i>	<i>No classes - Spring Break</i>		
E4	Mar 10/11	Collect data in Arboretum	7	Forest data (in class)
E4	Mar 17/18	Collect data in Arboretum	5, 6	Forest data (in class)
305	Mar 24/25	Paper discussion Lab report guidelines Fruit fly competition data analysis	7	Fly Lab Report
305	March 31 /April 1	Fire data entry		
305	Apr 7/8	Fire data calculations	7	
305	Apr 14/15	Paper discussion Fire lab graphs	7	Summary paper – Ruth et al. 2007
305	Apr 21/22	Fire report due	7	Forest Lab Report

Emphasized dates in bold are days you should bring water to drink and clothes that are appropriate for hiking through dense forests - closed-toe shoes*, socks, and long pants are best to avoid cuts, ticks, and