

Evolution and Biodiversity Laboratory BIL 161 – Spring 2010

<u>Week of:</u>	<u>Lab Topic:</u>
January 18	Martin Luther King Holiday: NO LABS
January 26	Lab #1: Live Demonstration: Processes of Microevolution Assignment: Mini-report on today's exercise due next lab period
February 1	Lab #2. Systematics and Taxonomy Quiz #1 (10 points) Cladogram (10 points)
February 8	Lab #3. Inquiry: Biodiversity Safari Quiz #2 (10 points)
February 15	Lab #4. Inquiry: Environmental Effects on Seed Germination Quiz #3 (10 points)
February 22	Lab #5. Symposium: Biodiversity Safari Team Presentations Presentation (30 points) <u>RECORD DATA FROM SEEDLING EXPERIMENT</u> Quiz #4 (10 points)
March 1	Lab #6. TBA Quiz #5 (10 points)
March 8	LAB EXAM I (Complete Seedling Data Recording and Analysis, as necessary)
March 15	SPRING BREAK
March 22	Lab #7. Symposium: Seed Germination Team Presentations Quiz #6 (10 points) Presentation (30 points)
March 29	Lab #8. Inquiry: Agonistic Behavior in <i>Betta splendens</i> Quiz #7 (10 points)
April 5	Lab #9. Symposium: <i>Betta</i> Behavior Team Presentations Quiz #8 (10 points) Presentation (30 points)
April 12	Lab #10. Inquiry: Water Movement in Vascular Plants Quiz #9 (10 points)
April 19	Lab #11: Symposium: Water Movement Team Presentations Quiz #10 (10 points) Presentation (30 points)
April 26	LAB EXAM II (100 points)

Required texts: *Life, the Universe, and Evolution* by Dana Krempels
(free online at www.bio.miami.edu/dana/161/evolution)
Dictionary of Word Roots and Combining Forms by Donald Borror

Required readings: Text readings from lecture (*Biology* by Campbell) should be considered an integral part of the lab, along with readings from the lab texts.

BIL 161 Home page: www.bio.miami.edu/dana/161

Course web site: www.bio.miami.edu/dana/161 has links to all course information

LABORATORY POLICIES

LAB MANUAL

YOU MUST BRING YOUR LAB MANUAL WITH YOU TO THE FIRST LAB AND TO EVERY LAB, either on a laptop or hard copy! It will be your guide through the Wonderful World of Organismal Biology. The manual is available for downloading at www.bio.miami.edu/dana/161/evolution

TEAM RESEARCH PRESENTATIONS

These are to be given as PowerPoint presentations or as posters. The online lab manual has specific instructions about how to prepare your presentations and posters.

ATTENDANCE AND MAKE UPS

Attendance in laboratory is MANDATORY. **DO NOT MISS LABORATORY.**

Labs are completely dismantled every Friday. Therefore, if you miss a lab (even for medical or religious reasons), you must make it up in the same week. Please be sure to plan ahead! There are no make up labs after the last lab of the week is over.

If you anticipate having to miss a lab (due to a religious holiday, for example), NOTIFY YOUR TA IMMEDIATELY so that arrangements can be made for you to work with another team, if it is a research-based lab that you will miss. Missing a research lab makes it VERY difficult for you to participate with a team on the following week's lab presentation, so DO NOT MISS YOUR LAB UNLESS IT IS A TRUE EMERGENCY. Make up exams/quizzes must be arranged between you and your TA.

GRADING

Lab midterm	100
Lab final	100
Quizzes	100
Lab Attendance & participation (10 points per week)	100
Mini-report on Population Genetics (Microevolution) lab	10
Cladogram Assignment	10
Biodiversity Safari Presentation	20
Seedling Growth Presentation	25
Betta Behavior Presentation	25
Water Movement Poster Presentation	30
<u>Discretionary points (TA's assessment of your effort)</u>	<u>30</u>
TOTAL	600

Don't wait until the night before to start writing! IT IS YOUR RESPONSIBILITY TO BACK UP YOUR WORK AND KEEP A COPY UNTIL YOU HAVE A FINAL GRADE AT THE END OF THE SEMESTER.

LABORATORY EQUIPMENT

Any student found guilty of wanton negligence or abuse of lab equipment (such as leaving a microscope dirty, leaving a microscope slide on the scope stage, leaving glassware dirty, leaving a scope cord dangling and hazardous for the next student, throwing trash in the sinks etc.) will automatically be docked 5 points. THIS IS YOUR OPPORTUNITY TO LEARN HOW TO PROPERLY USE THE SKILLS AND TOOLS OF YOUR CHOSEN FUTURE PROFESSION. WE'RE HERE TO HELP YOU, BUT WE CAN'T DO IT WITHOUT YOUR COOPERATION.

ACADEMIC ETHICS

Cheating, including copying on exams and plagiarism on research presentations, will not be tolerated, and is easily detected by our very experienced and jaded TAs. Any student caught cheating will automatically receive an "F" in the course *and* brought before the university's Undergraduate Honor Council for possible further penalties. Every student will be required to read and sign a document on what constitutes plagiarism. We will keep the documents as proof that each student understands the definition of cheating.

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