

## Evolution and Biodiversity Laboratory BIL 161 – Spring 2019

<b>Week of:</b>	<b>Lab Topic:</b>
January 14 <b>(Session 1)</b>	Orientation and Introduction: Biodiversity <b>Assignment due next lab session: Literature Search (25 points)</b>
January 21 <b>(Week 1)</b>	No labs this week – Dr. Martin Luther King, Jr. Observance (Read Lab Chapters in advance)
January 28 <b>(Session 2)</b>	Systematics and Taxonomy <b>Assignment DUE: Literature search synopsis (25 points)</b> <b>Quiz: 10 points</b> <b>Assignment due at end of lab: Taxonomic Key of Caminalcules (5 points)</b> <b>Assignment due at end of lab: Phylogenetic Tree of Caminalcules (5 points)</b>
February 4 <b>(Session 3)</b>	Developing an Experimental Protocol for Biodiversity Project <b>Quiz: 10 points</b> <b>Assignment due at end of lab: Research Protocol (25 points)</b>
February 11 <b>(Session 4)</b>	Data Collection for Biodiversity Project. <b>Quiz: 10 points</b>
February 18 <b>(Session 5)</b>	Data Collection for Biodiversity Project, continued <b>Assignment due at end of lab: Completed Data spreadsheet: 15 points</b>
February 25 <b>(Session 6)</b>	Data Analysis for Biodiversity Project <b>Quiz: 10 points</b> <b>Assignment due at end of lab: Graph of summary data (20 points) Project.</b>
March 4 <b>(Session 7)</b>	Biodiversity Research Symposium (PPT team presentations) <b>(Presentation: 25 points) (Peer PowerPoint Assessment: 10 points)</b>
March 11 - 15	<b>SPRING BREAK: no lab meetings</b>
March 18 <b>(Session 8)</b>	Orientation and Introduction: Agonistic Behavior in <i>Betta splendens</i> <b>Quiz: 10 points</b> <b>Assignment due next lab session: Literature Search (25 points)</b>
March 25 <b>(Session 9)</b>	Practice using different types of stimuli on <i>Betta</i> subjects. Learn the tools of ethology <b>Assignment DUE: Literature search synopsis (25 points)</b> <b>Quiz: 10 points</b> <b>Assignment due at end of lab: Ethogram (10 points)</b>
April 1 <b>(Session 10)</b>	Develop Team Research Project on <i>Betta</i> behavior. <b>Quiz: 10 points</b> <b>Assignment due at end of lab: Research Protocol (25 points)</b>
April 8 <b>(Session 11)</b>	Data Collection for <i>Betta</i> Behavior Project.
April 15 <b>(Session 12)</b>	Data Collection for <i>Betta</i> Behavior Project. <b>Assignment due at end of lab: Completed Data Spreadsheet (15 points)</b>
April 22 <b>(Session 13)</b>	Data Analysis for <i>Betta</i> Behavior Project <b>Quiz: 10 points</b> <b>Assignment due at end of lab: Graph of summary data (20 points)</b> Preparing your Research Poster
May 1 – 8	Behavior Research Symposia (see schedule on course web site) <b>Poster Presentation (25 points)</b> <b>Peer Poster Assessment (10 points)</b>

Course web site: [www.bio.miami.edu/dana/161](http://www.bio.miami.edu/dana/161) has links to all course information

# LABORATORY POLICIES

## LAB MANUAL

Be sure to bring a laptop or other device to lab each week to refer to the online lab manual linked here:

[www.bio.miami.edu/dana/161](http://www.bio.miami.edu/dana/161)

You are required to read the lab manual and all other assigned material before you come to lab. At least part of each week's quiz will cover what you are about to do in lab.

## TEAM RESEARCH PROJECTS

Students will be assigned to teams of four and will perform two research projects over the semester. This will culminate in a symposium (Powerpoint or Poster; your instructor will provide details).

## ATTENDANCE AND MAKE UPS

Because you will be working in teams, attendance is mandatory. **DO NOT MISS LABORATORY.**

*If you must miss a lab due to medical, religious, emergency or other university-sanctioned reason, you must notify your instructor well in advance so that arrangements can be made for you to contribute appropriately to your team's project.* Make up work must be arranged between you and your lab instructor, and will be assigned at the instructor's discretion.

BIODIVERSITY PROJECT	points	Due:
Literature search/paper synopsis	25	Session 2
Systematics Taxonomic Key	5	Session 2
Systematics Phylogenetic Tree	5	Session 2
Team Research Protocol	25	Session 3
Data Spreadsheet (completed)	15	Session 5
Summary data figure/graph	20	Session 6
Team Research Presentation (ppt)	25	Session 7
Peer PowerPoint Assessment	10	Session 7
Quizzes	40	10 pts/quiz
Lab participation	60	10 pts/week
Discretionary points	20	
<b>TOTAL</b>	<b>250</b>	
ANIMAL BEHAVIOR PROJECT		
Literature search/paper synopsis	25	Session 9
Ethogram	10	Session 9
Team Research Protocol	25	Session 9
Data Spreadsheet (completed)	15	Session 11
Summary data figure/graph	20	Session 12
Team Research Presentation (poster)	25	Finals period
Peer Poster Assessment	10	Finals period
Quizzes	40	10 pts/quiz
Lab participation	60	10 pts/week
Discretionary points	20	
<b>TOTAL</b>	<b>250</b>	

## LABORATORY EQUIPMENT

Any student guilty of wanton negligence or abuse of lab equipment will be docked lab participation and/or discretionary points. The Undergraduate Teaching Assistant (UGTA) will be responsible for checking each lab station before any team members are allowed to leave the lab. If a lab station is left in an untidy state, the UGTA will record this, and your Lab Instructor will dock points from each team member.

## ACADEMIC ETHICS

Cheating, including plagiarism, will not be tolerated, and is easily detected by our very experienced and jaded instructors. Any student caught cheating will be turned over to the University Honor Council.

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