

BSC 2010L – Integrated Principles of Biology Lab I

Syllabus for online course

Fall 2018 semester

I. Class Meetings

The entire course will be conducted online through the course CANVAS website. You can directly access the Canvas login at <https://lss.at.ufl.edu/>

II. BSC Lecture Courses

The BSC Online Lecture course (BSC 2010) is a separate course from the BSC Online Lab course.

III. Instructors

Professor:

Stefanie Gazda, Ph.D.

Stefanie.gazda@ufl.edu

Office Hours: Wed/Thur 9:30 -11:00 am and by appointment

Teaching Assistants:

Patrick Milligan

pmilligan@ufl.edu

Office Hours:

Mon/Wed/Thu 11 - 12:00 pm

and by appointment

Shengchen Shan

shan158538@ufl.edu

Office Hours:

Wed/Fri 1:30-3 pm

and by appointment

Shamindri Tennakoon

stennakoon@ufl.edu

Office Hours:

Tu/Thur 2:30 – 4:00 pm

and by appointment

Office hours will be held on online and via email. Please make an appointment for an in-person meeting.

IV. Course Goals and Objectives

The primary goal of this course is to establish a coherent foundation of knowledge in biology and to prepare students for comprehension in advanced biology courses and science in general. Fundamental concepts discussed include the scientific methods by which we come to know things in science, the chemical composition and processes that make up all life, genetic processes and the means of inheritance of traits, the mechanisms and processes of natural selection, and adaptation and evolution of life on Earth. An additional course goal is to develop critical thinking skills for development of reasoned thought and for evaluation of life experiences.

- Objectives of the course will be achieved if, by its conclusion, students can:
- Describe a scientific hypothesis and identify testable predictions that logically follow
- Construct proper figures representing biological data, and interpret data represented in similar figures
- Understand the proper use and function of key types of laboratory equipment, such as microscopes, spectrophotometers, thermocyclers, and gel electrophoresis arrays
- Understand the importance of statistics in scientific sampling, determine appropriate statistical tests for particular types of data, understand the meaning of statistical significance, interpret statistic results and draw appropriate conclusions from them
- Describe the relationship between genotype and phenotype and identify methods by which genotype can be determined
- Determine the mode of inheritance of genetic traits based on ratios of phenotypes
- Identify the primary organs of representative invertebrates and their associated

- functions
- Discuss the evidence that all living things are descended from a common ancestor
- Read, evaluate, and construct a phylogenetic tree

V. General Education Student Learning Outcomes

Biological science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the life sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern biological systems. Students will formulate empirically-testable hypotheses derived from the study of living things, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

The General Education objectives and the associated Student Learning Outcomes for Biological Sciences are achieved through inquiry-based and active-learning exercises in the laboratory, including prelab assignments, experimental design, quizzes, oral presentations, and completion of weekly lab notes and data sheets. These exercises are designed to reinforce, augment, and accompany learning objectives in the companion BSC 2010 lecture course. In particular, the BSC 2010L lab exposes students to the development and testing of specific hypotheses, collection and presentation of biological data, and analysis of statistical significance.

VI. Expectations

Each student is solely responsible for reading and following the instructions, guidelines and schedules in this syllabus. **Not having read the information in this syllabus or in instructor announcements will not constitute an excuse for missing an assignment or other assessment.**

VII. E-mail Communication

All e-mail correspondence to course instructors must **originate from your ufl.edu account, have your full name in the body of the e-mail, and contain your course and section number in the subject line.** E-mails not meeting these requirements may not be recognized by our e-mail filters, and thus may not be answered. For the timeliest responses, use the Inbox Tool in Canvas.

VIII. Course Resources

A. Lab Manual

Lab manual readings will be available in your Canvas course.

B. Labster

Part of your assignments will be completed using Labster. They are simulations you will perform and answer questions about when you are finished. The cost is \$24.99 for the semester. *Information on how to sign up will be posted on CANVAS.*

C. Carolina Biological Supply

Part of your assignments will be completed using materials from Carolina.com. To order your kit, go to the BSC2010L Order Page (<http://www.carolina.com/distancelearning/201508-uf-BSC-2010L>). The code for the Carolina kit is 581442. The cost of the kit is \$60.50 plus \$9.95 shipping.

D. Course Website (e-Learning)

Class materials will be posted on the course e-Learning website (<http://lss.at.ufl.edu>). The course is found under “e-Learning in Canvas”. You are responsible for **all** announcements made in lecture and/or posted on the course website for this class. For help with e-Learning, call the UF Computing Help Desk at 352-392-4357, or visit the e-Learning support website: <https://lss.at.ufl.edu/help.shtml>

IX. Online Instruction Information

As part of BSC 2010L, you are required to complete online assignments. If at any time you have questions about these assignments, please contact the Online Instructor. A schedule will be posted on e-Learning with the due dates for each assignment. **All assignments must be completed by the stated due date and time for credit. Extensions will NOT be given because of technical or personal issues that occur within 24 hours of the assignment deadline.** Many assignments will also have a set time limit, so make sure you have time to devote to that assignment before you begin. You are expected to work by yourself on the assignments and cheating will not be tolerated. Note that all due dates for assignments are clearly posted on course website and reflect the most up-to-date information.

To facilitate actual discussion, a discussion page will set up in e-Learning in Canvas at the end of each Module. Any questions regarding the material or the online assignments should be posted there, so that your instructors, or your fellow students will be able to provide answers. Don't be shy about asking questions; after all, if you are confused about the material there will almost certainly be other students with the same questions.

Communication with Your Online Instructor:

When you have a question about the assignments, check the following sources first to see if it is already answered, **before** e-mailing your Online Instructor:

- Course Syllabus
- e-Learning announcements (this is the primary means that your Online Instructor has to communicate with you in a timely manner)
- e-Learning Module Posts

If you still cannot find the answer to your questions:

- If it is a question that others might find useful to know the answer to as well, post it in the e-Learning Module discussion section.
- If it is a question specific to you (e.g. account or grade specific), e-mail your instructor. Barring unusual circumstances, expect a reply with 24 hours. E-mails and e-Learning Module posts are checked at least once per day, but sometimes not more than that.

Grading of Online Exercises:

Each lab will begin on a Monday and close on Sunday. Some labs have a two week component, in which case each part will adhere to this schedule.

- *Pre-Lab*: Pre-labs will be due on Wednesday at 11:59pm EDT/EST. All readings should be done prior to completing the pre-lab.
- *Lab Activities*: All lab activities must be completed/turned in by Sunday at 11:59pm. If it is a two week long lab, then only the part assigned for that week will be due. If a post-lab activity is assigned, it is due at the same time as the lab activities.
- *Participation*: Some labs require you to discuss answers in groups. You must adhere to the netiquette polices outlined below. There are rubrics for discussions, but keep in

mind that posts should be 1) making educated initial posts about the topic and properly citing sources, and 2) providing constructive criticism and feedback for groupmates' posts

- Late work will not be accepted, unless there is written documentation from a doctor, the Dean of Student s Office, or due to a documented technical issue. If there is an issue with you completing your assignments on time, contact your instructor immediately. Do not wait until the last minute!

There are no make-ups available for assignments. Once assigned, assignments are available online at all times up until the deadlines. Because they are assigned well ahead of time, documentation of illness or a serious personal matter must be provided for at least five of the seven days of the week of the assignment's deadline for any accommodations to be made. It is especially important not to wait until just before the deadlines to complete assignments. A computer problem happening just before the deadline is not a valid excuse for not completing the assignment. If there is a technical problem with accessing the website or a particular assignment within *CANVAS*, you must contact *eLearning* technical support and the online instructor at least 48 hours prior to the deadline, so appropriate steps can be taken to fix the issue and appropriate extensions can be given if necessary. (Thus, check early that you can access the assignments. You will not be granted an extension for technical problems, if you do not contact the online instructor before the deadline.) It is best to get your assignments done at least two days early. It is your responsibility to have and maintain all the equipment and services necessary to participate in an online course.

Repeated for emphasis: technical problems must be reported to the online instructor at least 48 hours prior to the submission deadline, no exceptions!

X. Academic Honesty

All students registered at the University of Florida have agreed to comply with the following statement:

"I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

In addition, on all work submitted for credit the following pledge is either required or implied:

"On my honor I have neither given nor received unauthorized aid in doing this assignment."

Cases of plagiarism or other academic dishonesty will not be tolerated, and may result in grade penalties or other sanctions. In this course, academic dishonesty includes (but is not limited to) collaborating with other students on course assignments, discussing quiz questions or answers with other students, giving other students the password for locked quizzes, and plagiarism. If you have knowledge of any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to

http://flexible.dce.ufl.edu/media/flexibleufl.edu/documents/uf_policy_student_conduct.pdf

Plagiarism is also a violation of the Academic Honesty Policy, and will be treated as such, resulting in grade penalties or other sanctions. Please review

<http://gethelp.library.upenn.edu/guides/engineering/ee/plagiarize.html>.

XI. Accommodations for Students with Disabilities

Students who will require a classroom accommodation for a disability must contact the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). Please see the University of Florida Disability Resources website for more information. When possible, the student should provide documentation of a requirement for accommodation to the instructor by the second week of classes. No accommodations are available to students who lack this documentation, and accommodations are not retroactive. It is the policy of the University of Florida that the student, not the instructor, is responsible for arranging accommodations when needed. Once notification is complete, the Dean of Students Office of Disability Resources will work with the instructor to accommodate the student.

XII. Schedule and Grading

Module	Topic	Start Date	End Date
0	Getting Started	August 22	September 2
1	Scientific Process & Statistics Part 1	August 27	September 2
1	Scientific Process & Statistics Part 2	September 3	September 9
2	Enzyme Kinetics (Labster)	September 10	September 16
3	Yeast Fermentation (Labster)	September 17	September 23
4	Salamander Speciation	September 24	September 30
5	Inheritance - Week 1 (Carolina Biological)	October 1	October 7
5	Inheritance - Week 2 (Carolina Biological)	October 8	October 14
6	Cat Coat Genetics	October 15	October 21
7	Biotechnology Part 1 (Labster)	October 22	October 28
7	Biotechnology Part 2 (Labster)	October 29	November 4
8	Natural Selection	November 5	November 11
9	Population Genetics	November 12	November 18
<i>NO LABS THE WEEK OF THANKSGIVING</i>			
0	Phylogenetics	November 26	December 2

Grading Scale: Each Module is worth 10% of your grade.

Name	Range
A	100 % to 94.0%
A-	< 94.0 % to 90.0%
B+	< 90.0 % to 87.0%
B	< 87.0 % to 84.0%
B-	< 84.0 % to 80.0%
C+	< 80.0 % to 77.0%
C	< 77.0 % to 74.0%
C-	< 74.0 % to 70.0%
D+	< 70.0 % to 67.0%
D	< 67.0 % to 64.0%
D-	< 64.0 % to 61.0%
F	< 61.0 % to 0.0%

XII. Other Information

Drop/Add/Withdrawal: A student can drop/add during the drop/add period with no penalty. After drop/add, a student who drops will receive a W until the date listed in the academic calendar. After that date, the student may be assigned an “E” (fail). Note: it is the responsibility of the STUDENT to withdraw from a course, not the instructor. Failure to participate/complete the class does NOT constitute a drop.

Course Evaluations: Anonymous course evaluations will be open via UF’s online evaluations system near the end of the semester; you will receive e-mail notification of when the evaluation open. We do take student feedback into account when planning future semesters; please let your instructors know if there are particular modules and/or activities that you found helpful or that you would have liked to cover in more depth, as well as any that you found less useful.