Integrated Principles of Biology 1 Lab Syllabus – Summer 2020

BSC2010L ONLINE

I. INSTRUCTOR INFORMATION

Coordinator of Labs:

Kent Vliet, Ph.D.

Email: kvliet@ufl.edu

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

https://ufl.zoom.us/j/4336756706

Teaching Assistants:

TA	Section Number	Class Number	eMail
David Anderson	7253	10,592	daan4786@ufl.edu
Aditi Jayarajan	7254	10,593	aditi@ufl.edu
Shelby Krupar	7257	10,594	skrupar@ufl.edu
Sarah Kurtis	7258	10,527	sarahkurtis@ufl.edu
Qinyin Ling	725B, 7C01	18,319, 10,528	lingqinyin@ufl.edu
Bowen Tan 7E45		10,529	tanbowen@ufl.edu

TAs' office hours will be posted in Canvas soon.

Office hours will be held via Zoom

II. COURSE INFORMATION

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

COURSE 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 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.

COURSE TEXTBOOK

This course will use an OpenStax textbook that is available for free to view or download.

Clark, M. A., Douglas, M., & Choi, J. (2018). *Biology* (2nd ed.). OpenStax. Retrieved from https://openstax.org/details/books/biology-2e

Please review the OpenStax Accessibility Statement and Privacy Policy prior to use.

COURSE SUPPLIES

You will need the following materials for this course.

Labster Simulations

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 \$25.00 for the semester. You will not be able to access Labster simulations until the first Module that they are used.

Upon accessing the first Labster simulation assignment in Lab 2, you will be prompted to submit a one-time payment. For more information, please review <u>How do I purchase access to Labster?</u>

Please use Google Chrome or Mozilla Firefox web browsers when accessing Labster simulation assignments. To run Labster simulations, check to make sure your computer meets the <u>minimum system requirements for Labster simulations</u>.

Note: Labster simulations do not run on mobile devices such as smartphones and tablets.

For Labster privacy and accessibility policies, please review the <u>Labster Terms and Conditions page</u>.

Carolina Biological Kits

Part of your assignments will be completed using materials from Carolina.com. To order your kit, go to the BSC2010L Order Page (https://www.carolina.com/catalog/detail.jsp?prodId=581442). The code for the Carolina kit is 581442. The cost of the kit is \$60.50 plus shipping.

You are required to have the kits by the third week of the semester. No extensions will be granted if you cannot get the kits in time to start the lab.

COURSE DESCRIPTION

Laboratory experiments are designed to accompany BSC 2010. The BSC Online Lecture course (BSC 2010) is a separate course from the BSC Online Lab course.

PREREQUISITE KNOWLEDGE AND SKILLS

Degree-seeking students only. Pre- or Co-requisite: BSC 2010 or the equivalent.

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 in similar figures
- Understand the proper use and function of key types of laboratory equipment, such as microscopes, spectrophotometers, 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

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 datasheets. 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.

COURSE 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.

III. COURSE POLICIES

As part of BSC 2010L, you are required to complete online assignments. If at any time you have questions about these assignments, please contact your TA. A schedule is posted in this syllabus with the due dates for each assignment. All assignments must be completed by the stated due date and time for credit. No credit will be given for assignments completed after the deadline. Extensions will NOT be given because of technical or personal issues that occur within 24 hours of the assignment deadline. Many assignments may take several days to complete, 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 the course website and reflect the most up-to-date information.

ATTENDANCE

Students are expected to check the Canvas course regularly for announcements, assignment due dates, and other course-related information. Students are to complete all assigned work (quizzes, activities, and discussions) by the due dates. Students are strongly encouraged to read the assigned chapters before attempting any of the assignments as this will make it easier to comprehend the material.

COURSE ACTIVITIES AND MATERIALS

Class materials will be posted on the course e-Learning website (https://elearning.ufl.edu/). The course is found under "e-Learning in Canvas". You are responsible for **all** Announcements posted on the course website for this class. Each lab will begin on a Sunday at 3 pm and close on the following

Sunday at 11:59 pm EDT/EST. Some labs have a two-week component, in which case each part will adhere to this schedule.

For help with e-Learning, call the UF Computing Help Desk at 352-392-4357, or visit the e-Learning support website: https://elearning.ufl.edu/.

Lab Readings

Lab background readings and manuals will be available in your Canvas course.

Pre-Lab Quizzes

Pre-lab quizzes will be due on Wednesday at 11:59 pm EDT/EST. All readings should be done prior to completing the pre-lab quiz.

Lab Activities and Discussions

All individual lab activities must be completed/turned in by Sunday at 11:59 pm EDT/EST. Discussion-related activities may have multiple due dates, please read the discussion description for more information. Due dates are set for the initial posts. If it is a two-week-long lab, then only the part assigned for that week will be due.

Post-Labs

Post-lab quizzes are due on Sunday at 11:59 pm EDT/EST. All lab activities should be done prior to complete the post-lab.

Lab Q&As

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:

- **e-Learning Announcements** (this is the primary means that your Online Instructor has to communicate with you in a timely manner)
- Lab Q&A Discussion Boards
 - In each lab, there is a Lab Q&A discussion board. This is where you can post questions to other students, the instructor, and to the TAs about that particular lab. 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.

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 on the e-Learning Lab Q&A discussion board.
- If it is a question specific to you (e.g. account or grade-specific), message your instructor. Barring unusual circumstances, expect a reply with 24 hours (48 hours on weekends).

E-mails and e-Learning discussion posts are checked at least once per day, but sometimes not more than that.

PARTICIPATION

Some labs require you to discuss answers in groups. You must adhere to the netiquette policies outlined below. There are rubrics for discussions, but keep in mind that posts should make educated initial posts about the topic and properly cite sources and provide constructive criticism and feedback for groupmates' posts.

Netiquette

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats. Review the <u>Netiquette Guide for Online Courses</u> for expected student behavior.

When posting on the Discussion Board in your online class, you should:

- Make posts that are on-topic and within the scope of the course material.
- Take your posts seriously and review and edit your posts before sending them.
- Be as brief as possible while still making a thorough comment.
- Always give proper credit when referencing or quoting another source.
- Be sure to read all messages in a thread before replying.
- Don't repeat someone else's post without adding something of your own to it.
- Avoid short, generic replies such as, "I agree." You should include why you agree or add to the previous point.
- Always be respectful of others' opinions even when they differ from your own.
- When you disagree with someone, you should express your differing opinion in a respectful, non-critical way.
- Do not make personal or insulting remarks.
- Be open-minded.

LATE WORK

Late work will not be accepted, unless there is written documentation from the Dean of Students Office (https://care.dso.ufl.edu/instructor-notifications/), 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!

MAKE-UPS

There are no make-ups available for assignments. Once assigned, assignments are always available online 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!

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

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

IV. UF POLICIES

UF Online students are bound by the same UF policies as on-campus students. Please read through this section in full.

UNIVERSITY POLICY ON ACADEMIC CONDUCT

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The <u>Student Honor Code</u> specifies the number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

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/flexibledceufledu/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.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter that must be presented to the instructor when requesting an accommodation. Note that the student should provide documentation of a requirement for accommodation by the second week of classes. No accommodations are available to students who lack this documentation. 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. Accommodations are not retroactive.

SOFTWARE USE

All faculty, staff, and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

V. TECHNICAL SUPPORT

For issues with technical difficulties for Canvas, please contact the UF Help Desk at http://helpdesk.ufl.edu or (352) 392-HELP (4357).

Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

VI. SUPPORT SERVICES

Resources are available at <u>Distance Learning's Getting Help</u> for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints about your experience in this course, please visit <u>Distance Learning's Student Complaint Process</u> to submit a complaint.

College can be a very stressful time in a person's life. Resources are available on campus to help students meet academic goals and solve personal problems, which may interfere with their academic performance. If you find that you are having difficulty emotionally or academically, there is substantial support available. See "A Self Help Guide for Students" or contact one of the following services:

- UF Counseling and Wellness Center, Radio Rd Facility, 392-1575
- Dean of Students Office, 202 Peabody Hall, 392-1261
- Career Resource Center, Reitz Union, 392-1601
- CLAS Academic Advising Center, Farrior Hall, 100 Fletcher Drive, 392-1521
- UF Field and Fork Pantry, 564 Newell Dr., 294-3601

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course, is urged to contact the Dean of Students (202 Peabody Hall, 392-1261) for support. Furthermore, please notify your instructor(s) if you are comfortable in doing so. This will enable us to provide any resources that we may possess.

VII. SCHEDULE AND GRADING

Lab	Start	End	Subject
О	May 11	May 24	Orientation (Complete to access Lab 1)
1	May 17	May 24	Scientific Inference
2	May 24	May 31	Enzyme Kinetics (Labster)
3	May 31	June 7	Yeast Fermentation (Labster)
4	June 7	June 14	Salamander Speciation
5	June 10	June 21	Inheritance - Week 1 (Carolina Biological)
	June 21	July 5	BREAK
5	July 5	July 12	Inheritance - Week 2 (Carolina Biological)
6	July 12	July 19	Experimental Genetics
7	July 19	July 26	Population Ecology
8	July 26	Aug. 2	Evolution (Labster)
9	Aug.2	Aug. 9	Natural Selection (Carolina Biological)
	Aug. 9	Aug. 14	NO LAB

Assignment totals are subject to change at the discretion of the instructor. Each graded lab is worth 10% of your grade. All grades will be posted on e-Learning, and it is the responsibility of the student to check their grades to make sure they are accurate. If there is a discrepancy, you must let us know within ONE week of the grade being posted on e-Learning.

The minimum grade cutoffs are listed below. These cutoffs will not be raised; in other words, if you receive 94% of the possible points, you are guaranteed to earn an A grade. Final scores will NOT be rounded (i.e., 89.9% is not 90%).

Letter Grade	Point Range (%)
A	≥ 94.0%
A-	≥ 90.0%
В+	≥ 87.0%

Letter Grade	Point Range (%)
В	≥ 84.0%
В-	≥ 80.0%
C+	≥ 77.0%
C	≥ 74.0%
C-	≥ 70.0%
D+	≥ 67.0%
D	≥ 64.0%
D-	≥ 61.0%
E	≤ 60.9%

Note that the current UF policy for assigning grade points is available at the following undergraduate catalog web page: <u>Grades and Grading Policies</u>.

VIII. DISCLAIMER

This syllabus represents the instructor's current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.