

BSC 2010 – Integrated Principles of Biology I

Syllabus for online course

Fall 2019 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://elearning.ufl.edu/>

II. BSC Laboratory Courses

The BSC Online laboratory course (BSC 2010L) is a separate course from the BSC Online lecture 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:

TAs will be announced on Canvas at the start of the course.

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
- Compare and contrast the components of prokaryotic and eukaryotic cells and the molecular processes driving cellular structure and functions
- Outline the process and molecular components of key metabolic pathways
- Describe the relationship between genotype and phenotype
- Predict the RNA and protein sequences that will be transcribed and translated from a given gene
- Predict the immediate and long term effects of specific gene mutations
- Discuss the evidence that all living things are descended from a common ancestor and have changed and diversified into species through time.
- Describe the primary driving forces of evolutionary change
- Identify sources of genetic variation in populations and explain how this can be shaped in the presence of natural selection and other evolutionary forces
- Interpret and evaluate phylogenetic trees and use them to distinguish evolutionary predictions

- Outline major fundamental events in the history of life on Earth, including changes to biogeochemical cycles connected with major evolutionary transitions.

V. General Education Student Learning Outcomes

The general education student learning outcomes (SLOs) describe the knowledge, skills and attitudes that students are expected to acquire while completing a general education course at the University of Florida. The SLOs fall into three categories: **content**, **communication** and **critical thinking**.

Every general education course must address all three SLOs. Note that the subject area objectives (detailed above) describe the context within which the SLOs are achieved.

Category	Institutional Definition	Institutional SLO
CONTENT	Content is knowledge of the concepts, principles, terminology and methodologies used within the discipline.	Students demonstrate competence in the terminology, concepts, methodologies and theories used within the discipline.
COMMUNICATION	Communication is the development and expression of ideas in written and oral forms.	Students communicate knowledge, ideas, and reasoning clearly and effectively in written or oral forms appropriate to the discipline.
CRITICAL THINKING	Critical thinking is characterized by the comprehensive analysis of issues, ideas, and evidence before accepting or formulating an opinion or conclusion.	Students analyze information carefully and logically from multiple perspectives, using discipline specific methods, and develop reasoned solutions to problems.

To assess student performance in meeting these student learning outcomes for this course, students are evaluated by a variety of instruments throughout the course: three exams during the semester, graded on-line activities, exercises and assessments. Student Learning Outcomes are further assessed in BSC 2010L, the companion lab course. For example, the Communication SLO is assessed in graded written assessments and in oral presentations in the lab. In combination, BSC 2010 and BSC 2010L provide assessments of all categories of the General Education Student Learning Outcomes.

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, exam, 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. Textbook

Principles of Life, 2nd Edition, by Hillis, Sadava, Heller, & Price, Sinauer Associates and MacMillan (publisher).

There are current versions of the textbook on reserve at the Marston Science Library. Visit the Reserve Materials area to check out these copies.

B. Course Website (e-Learning)

Class material including the syllabus, discussion readings, problem sets, exam results, some lecture slides and other information related to the course 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://elearning.ufl.edu/>

IX. Online Instruction Information

As part of BSC 2010, 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 beyond the required assigned group discussions, a “Study Room” will be set up in e-Learning in CANVAS at the end of each module. Any questions regarding the lecture 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 Discussion section at the end of the Module in question.

• 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 (48 hours on the weekends). E-mails and e-Learning Discussion posts are checked at least once per day, but sometimes not more than that.

X. Assessments and Grading

There are several different types of assignments that students will have to complete. For most assignment types you will receive a grade based on the grading rubric provided. *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!

A. Exams

There will be three "midterm" exams, but no cumulative "final" exam. Each exam will cover material from video lectures, RealizeIt materials, learning activities, the online discussions, and the assigned readings in the textbook.

All exams will be multiple-choice and will be administered using HonorLock. For detailed instructions on how to sign up for exams and about HonorLock go to the "HonorLock" tab in the "Start here" section on the course website.

If necessary, exams MAY be curved using the following approach: The top 3% of the scores will be averaged, and the difference from 100 points will be added to each exam score.

Exams will be available for review by appointment for one week after the exam date; specific times for exam review will be announced following each exam. Exams will not be available for review after the semester has ended.

Make-up Exams: No make-up exams will be given without prior permission or documentation of illness. Students that will be missing an exam due to a pre-arranged university-approved excused absence (sports, etc.) should let the instructor know a minimum of two weeks in advance. These students may be required to take the make-up exam before the scheduled in-class exam.

In case of illness on exam day, a letter from the student's primary care provider is required. This letter must state that the student was unable to complete the exam on the scheduled date (i.e., a letter stating only that the student was seen in a clinic is not sufficient). A personal matter requires a note from the Dean of Students (P202 Peabody Hall). These notes must be received within five business days after the exam. Make up exams may be short-answer or essay format.

B. RealizeIt

This course uses personalized adaptive learning in a software platform called RealizeIt. RealizeIt allows students to progress at their pace through a learning path that is created

and adapted for each student throughout the course progression. Personalized adaptive learning engages with each student differently.

Based on your interactions with the course, the system finds out how much you already know, decides what you need to learn, constructs your appropriate learning pathway and starts the learning cycle. The system continues to learn more about you as you proceed on your learning pathway which is constantly being re-evaluated based on your continued participation. This allows the learning system to select the most appropriate content (text, video, charts, lecture, etc.) that helps you learn best and then constructs a specific lesson based on your learning preferences.

All modules within RealizeIt will be posted inside Canvas, integrated with the study materials for that topic. To access, click the RealizeIt Integrated Module within your Canvas course and will automatically open in a new window.

C. Learning Activities

Most modules will contain 1-3 learning activities. Individual Assignments will be submitted through the RealizeIt platform. Many of these activities will require a file upload of some sort and will be turned in as an assignment in RealizeIt. These assignments, unless otherwise stated, will be graded based on the specific grading rubric for each assignment. Rubrics for each assignment are available in their module section. It is advisable to look at the rubrics prior to submitting your assignment to make sure you have included all of the required information for the assignment.

For Group Work, these assignments will require you to either post a question or comment to the Group discussion board in CANVAS and then respond to peers' posts OR participate in a group discussion and submit answers to an assignment as a group. Each Group Work assignment will indicate which format should be used.

D. Peer Review

Some Group Work will require you to evaluate each other. This is a critical component.

E. Study Rooms

I DO NOT GIVE OUT EXTRA CREDIT! If you would like to earn more points towards your score, the best way to do this is to participate more. So, in each Module there is a Study Room. This is where you can post questions to other students, me, and to the TAs about that particular Module. The more Study Rooms that you participate in, the more credit (up to 5% of your total grade) you can earn.

F. Grading Summary:

Exams (3)		37.5 % (12.5% each)
RealizeIt Modules		25%
Learning Activities	Group work	15%
	Individual assignments	17.5%
Peer Review		5%
Study Room		5% (Extra Credit)

Assignment totals are subject to change at the discretion of the instructor.

All grades will be posted on e-Learning, and it is the responsibility of the student to check their grades on e-Learning 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 eLearning.

Minimum grade cutoffs are listed to the right. Because each exam may be curved individually, the scores for the course as a whole will not be curved (i.e. these grade cutoffs will not be lowered) except under extremely rare circumstances (i.e., unless we tell you otherwise these cutoffs will not be lowered, so do not ask). However, these cutoffs will not be raised; in other words, if you receive 90% of the possible points, you are guaranteed to earn an A grade. Final scores will NOT be rounded (i.e., 89.99% is not 90%).

Note that the current UF policy for assigning grade points is available at the following undergraduate catalog web page:
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Point Range (%)	Letter Grade
≥ 90.00	A
≥ 86.66	A–
≥ 83.33	B+
≥ 80.00	B
≥ 76.66	B–
≥ 73.33	C+
≥ 70	C
≥ 66.66	C–
≥ 63.33	D+
≥ 60.00	D
≥ 56.66	D-
≤ 56.65	F

G. Special Treatment

Please do not request individual special treatment regarding grading at the end of the semester; **we do not adjust grades for individuals for any reason**. Plan to do well on all exams and other assessments from the beginning of the semester; if you are having difficulty in the class, please let your instructors know *before* the exams rather than after.

XI. Computing Requirements

It is the responsibility of the student to maintain a functioning computing system and internet connection. Computing/internet connectivity issues will NOT be acceptable excuses for missed deadlines unless they are brought to the attention of the instructor **at least 48 hours prior to the deadline** and accompanied by the ticket number from technical support. See Resources for Technical Support contact information

Microsoft Office programs are required for many of the assignments; it can be accessed by current UF students through GatorCloud.

XII. 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.”

If you witness 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). You are expected to review and abide by the University of Florida Academic Honesty Guidelines at: <https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx#honesty>.

Cheating, including plagiarism will result in consequences which many range from a 0 on the assignment to a failing grade for the entire course. Sanctions for cheating may be applied in a retroactive manner.

XIII. Attendance

Students are expected check the course website regularly for announcements, assignment due dates, and other course related information. Students are to complete all assigned work (quizzes, activities, discussions, and exams) by the due date. 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.

XIV. Time Commitment

The UF College of Liberal Arts and Sciences assumes that each student will devote 3-4 hours per week per credit-hour to each course, including time in lectures and labs. Because BSC 2010 is 3 credits, each student should therefore expect to devote 9-12 hours per week to this course during a regular semester, or 11-15 hours per week during the summer. A recommended time allocation is to the right.

Activity	Hours per Week
Lectures/Videos	3
Online Exercises	2-3
Textbook Readings	2-3
Review and Study	2-3

If you find yourself spending more than the recommended number of hours per week on average on these activities, discuss this with your course instructor to see if you can refine your study habits. If you find yourself spending less than the recommended number of hours per week on average, you should recognize that you may have difficulty learning and comprehending the material in this time, and this will probably be reflected in poor performance on the various assessments, causing you to receive a lower overall course grade.

XV. Conduct in Class

Please review the “**Netiquette guide**” for online courses in the “*Start here*” section on the course website.

XVI. 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 at: <http://www.dso.ufl.edu/drc/>. 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.

XVII. Counseling Center

Many students experience test anxiety and other stress related problems. “A Self Help Guide for Students” as well as a diverse array of support systems are available through the

UF Counseling and Wellness Center (3190 Radio Road, 392-1575,
<http://www.counsel.ufl.edu/>).

XVIII. Course Evaluation

To improve the teaching and learning of this important course, students are required to submit a teaching evaluation for each instructor electronically.

Evaluations are stored and reported in a completely anonymous manner.

Authentication for evaluation submission is only to ensure that only one evaluation is submitted per student per instructor.

XIX. Course Schedule

Module #	Open Date	Close Date	Subject
0	8/20	8/28	Introduction Module
1	8/25	9/1	Scientific Process
2	9/1	9/8	Chemistry and the Building Blocks of Life
3	9/8	9/15	Cells: Organelles and Membranes
4	9/15	9/22	Cell Membrane and Signaling
	9/24	9/25	EXAM 1: M 1-4
5	9/22	9/29	Energy Pathways
6	9/29	10/6	Cell Cycles
7	10/6	10/13	Inheritance, Genes, Chromosomes & Genomes
8	10/13	10/20	DNA Replication and Transcription
9	10/20	10/27	Translation & Gene Expression
	9/29	9/30	EXAM 2: M 5-9
10	10/27	11/3	Evolution I
11	11/3	11/10	Evolution II
12	11/10	11/17	Phylogenetics
13	11/17	11/24	Speciation
14	12/1	12/8	History of the Earth
	12/10	12/11	EXAM 3: M 10-14