BSC 2011 - Integrated Principles of Biology II

Syllabus for online course Spring 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 2011L) 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 (and their Office Hours) will be posted on Canvas by 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. 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
- Read and evaluate a phylogenetic tree
- Describe the origin of photosynthesis in plants and the traits that enabled plants to diversify on land
- Discuss the potential adaptive significance of synapomorphies that define major clades of plants
- Explain how the alternation of generations varies among plant lineages and its significance in plant reproduction
- Discuss the role of hormones in plant development and environmental response
- Explain major themes to animal physiology and how it is linked with medicine
- Explain physical principles governing gas exchange in animals in air and water
- Diagram blood flow through the vertebrate circulatory system and describe the major functions of blood vessel types
- Diagram the arrangement of major proteins governing muscle contraction and describe excitation contraction coupling
- Describe the principles of electrical signals in neurons and diagram the organization of the vertebrate nervous system

- Explain principles governing how nitrogen waste is processed in animals and how salt and water balance are maintained in animals
- Describe and explain how climate and topography shape ecological systems
- Identify, compare, and contrast major terrestrial and aquatic biomes
- Describe how species interactions can influence fitness, population dynamics, and species distribution and can result in evolutionary change
- Explain how communities change over space and be able to calculate species diversity
- Diagram the global carbon and nitrogen cycle and identify the major stocks and fluxes
- Identify major anthropogenic changes to the carbon, nitrogen, and phosphorus cycles and describe how these changes have altered ecological systems

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 CONTENT	Institutional Definition Content is knowledge of the concepts, principles, terminology and methodologies used within the discipline.	Institutional SLO 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, short comprehension check quizzes used to assess comprehension and reasoning, and graded on-line activities, exercises and assessments. Student Learning Outcomes are further assessed in BSC 2011L, the companion lab course. In combination, BSC 2011 and BSC 2011L 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 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). An e-book is included with *Launchpad*.

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. Online Resources and Electronic Textbook

Launchpad is an online assignments and tutorial system from the textbook publisher. It is required for this course and includes an e-book with purchase. Each new copy of the *Principles of Life* textbook comes automatically packaged with *Launchpad* and an e-book. Instructions on how to access *Launchpad* and connect your account can be found in the Orientation Module on *Canvas*.

For help with Launchpad, contact Launchpad Technical Support:

If you have problems registering, purchasing, or logging in, please contact Customer Support at https://community.macmillan.com/community/digital-product-support. You can reach a representative 7 days a week through the online form, by chat, or by phone at (800) 936-6899.

C. UF All Access:

Please note that this course will be participating in the UF All Access program for the Spring 2019. Students will be able to opt-in to the REQUIRED access to Launchpad with eBook access for Principles of Life when classes begin and pay for these materials through their student account. Students who do not choose to "opt-in" will be able to purchase a standalone *Launchpad* code with eBook access through the UF Bookstore or online through the *Launchpad* site. Both options provide access to the same material, however opting-in will provide the course materials at the lowest price. There will also be a loose-leaf print version of the textbook available at the UF Bookstore for students who wish to have a physical copy of the text as a companion to the required online materials.

D. 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://lss.at.ufl.edu/help.shtml

IX. Online Instruction Information

As part of BSC 2011, 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 General Posts
- e-Learning Study Room 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 Study Room 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 weekends; do not expect an immediate response in the evenings). 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 (activities, tutorials, etc.) 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, comprehension checks, learning activities, the online discussions, and the assigned reading in the textbook.

All exams will be multiple-choice and will be administered using ProctorU. Each student must make an appointment to take the exam during the week of the scheduled exam. DO NOT WAIT to sign up for your exam dates/times. The earlier you sign up, the better chance you will have to get your desired testing time. ProctorU does charge additional fees for late sign ups. For detailed instructions on how to sign up for exams and about Proctor U go to the "Proctor U" tab in the "Start here" section on the course website.

If necessary, exams MAY be scaled 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. Comprehension checks

Each module will contain 2-3 comprehension checks. These checks will require you to read, watch videos, and/or complete an exercise from the book. You will then answer questions by taking a quiz in Canvas. You will be graded based on number of questions answered correctly out of total number of questions on the quiz. You will have TWO chances to complete the quiz. Your final quiz grade will be the HIGHEST score from the two quiz submissions.

C. Learning Activities

Each module will contain 1-3 learning activities. Many of these activities will require a file upload of some sort and will be turned in as an assignment in Canvas. 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.

You will complete these activities in mini-groups (3 to 4 students), large groups (3-4 min groups), or individually. For group activities, these assignments will require you to either post a question or comment to the 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 discussion assignment will indicate which format should be used.

D. LaunchPad

Launchpad is an online assignments and tutorial system from the textbook publisher. It is required for this course. Each new copy of the Principles of Life textbook comes automatically packaged with Launchpad. If you purchase a used textbook you will still need to purchase access to Launchpad. You are required to have access to Launchpad for the ENTIRE course. It is your responsibility to ensure that your access DOES NOT expire before the end of the semester.

E. Peer Review

Some group work will require you to evaluate each other. This is a critical component. Assignments requiring Peer Review will indicate as such in the directions. Peer Reviews are automatically assigned by *Canvas*, typically 24 hours before the Module closes. You will have 48 hours to complete the Peer Review.

Reviews are ONLY assigned to students that have participated in the activity by the due date. Students cannot be assigned Peer Reviews manually; if you are not assigned a Peer Review due to late submission, you will not get credit for either the assignment (see above) or the Peer Review. More information on how to access Peer Reviews can be found in *Canvas*.

F. 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. 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.

Grading Summary:

Exams (3)		37.5 % (12.5% each)
Comprehension checks		12.5 %
	Mini Group work	12.5%
Learning Activities	Large Group work	12.5%
	Individual assignments	12.5%
LaunchPad		10%
Peer Review		2.5%
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 e-Learning.

Minimum grade cutoffs are listed to the right. Because each exam may be curved individually (see section X-A, above), the scores for the course as a whole will not be scaled (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.a spx.

Point Range (%)	Letter Grade
≥ 90.00	A
≥ 86.66	A-
≥ 83.33	B+
≥ 80.00	В
≥ 76.66	В-
≥ 73.33	C+
≥ 70	С
≥ 66.66	C-

E. 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.

F. 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 is NOT a drop.

XI. Computing Requirements

It is the responsibility of the student to maintain a functioning computing system and internet connection that can meet the minimum requirements of the course. These requirements can be found in the Orientation Module in *Canvas*.

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 o 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 2011 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/Week
Lectures/Videos	1
Online Exercises	2-4
Textbook Readings	2-3
Review and Study	2-4

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, 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.

XVII. Counseling Center and University Support Services

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.

XVIII. Course Evaluation

Anonymous course evaluations will be open via UF's online evaluations system (https://evaluations.ufl.edu) near the end of the semester; you will receive e-mail notifications of when the evaluations open. 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

This is a tentative schedule; the dates and coverage of specific topics are subject to change.

Module #	Open Date	Close Date	Subject
0	Jan 6	Jan 13	Orientation Module
1	Jan 13	Jan 20	Evolution of Land Plants
2	Jan 20	Jan 27	Plant Reproduction
3	Jan 27	Feb 3	Plant Nutrition and Transport
4	Feb 3	Feb 10	Plants and their Environment
	Feb 11	Feb 12	Exam I
5	Feb 10	Feb 17	Nutrition and Digestion
6	Feb 17	Feb 24	Breathing and Circulation
7	Feb 24	Mar 3	Musculoskeletal System; Endocrinology
	Mond Mon	0	Spring Break
	Mar4 – Mar	0	Spring break
8	Mar4 – Mar Mar 10	Mar 17	Nervous System
8 9	-		1 0
	Mar 10	Mar 17	Nervous System
9	Mar 10 Mar 17	Mar 17 Mar 24	Nervous System Immunology and Endocrinology
9	Mar 10 Mar 17 Mar 24	Mar 17 Mar 24 Mar 31	Nervous System Immunology and Endocrinology Reproduction and Development
9 10	Mar 10 Mar 17 Mar 24 April 1	Mar 17 Mar 24 Mar 31 April 2	Nervous System Immunology and Endocrinology Reproduction and Development Exam II
9 10 11	Mar 10 Mar 17 Mar 24 April 1 Mar 31	Mar 17 Mar 24 Mar 31 April 2 April 7	Nervous System Immunology and Endocrinology Reproduction and Development Exam II Distribution of Ecological Systems
9 10 11 12	Mar 10 Mar 17 Mar 24 April 1 Mar 31 April 7	Mar 17 Mar 24 Mar 31 April 2 April 7 April 14	Nervous System Immunology and Endocrinology Reproduction and Development Exam II Distribution of Ecological Systems Life Histories and Population Ecology