BSC 2011 - Integrated Principles of Biology II

Syllabus for section 7263 Summer C 2016

I. Class Meetings

Tuesday, Wednesday, Thursday, and Friday

Section 7263 Period 5 02:00 PM-03:05 PM TUR L007

II. BSC Laboratory Courses

The BSC laboratory courses (BSC 2010L and BSC 2011L) are managed separately from the lecture courses. Please see the BSC Website (http://www.bsc.ufl.edu) for more information on the laboratory courses.

III. Instructors

Christine Davis, Ph.D. Department of Biology

Office: 614 Carr

Office Hours: by appointment and very flexible - email me!

E-mail: christine.davis@ufl.edu

Jennie DeMarco, Ph.D. Department of Biology Office: 417 Carr Hall

Office Hours: by appointment Email: jennied@ufl.edu

Kristen Sauby, Online instructor/Graduate Teaching Assistant

Department of Biology Office: 110 Bartram Hall

Office Hours: Thursday, 12:30-1:30 pm

E-mail: ksauby@ufl.edu

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 evolution and diversity of photosynthetic life, the structure, function and physiology of plants and animals, and the ecology of organisms, populations, communities, biomes, and the globe. 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 and describe how these changes have altered ecological systems

V. General Education Objectives for Biological Sciences

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 lectures, in class discussion, interactive "clicker" response systems, and online activities and exercises. The learning objectives and SLOs are further reinforced by inquiry-based and active-learning exercises in the companion laboratory course, BSC 2011L. In particular, the companion lab expands upon development and testing of specific hypotheses.

VI. 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 <u>subject area objectives</u> (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, daily graded "clicker" questions 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. For example, the Communication SLO is assessed in graded written assessments and in oral presentations in the lab. In combination, BSC 2011 and BSC 2011L provide assessments of all categories of the General Education Student Learning Outcomes.

VII. **Expectations**

Each student is solely responsible for reading and following the instructions, guidelines and schedules in this syllabus and on the course webpage, or announced in class. 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. Please set your preferences in Canvas so that you receive timely notifications of course announcements and other information.

VIII. **Course Resources**

Α. Textbook

Principles of Life, 2nd Edition, by Hillis, Sadava, Heller, & Price, Sinauer Associates W.H. Freeman (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.

В. **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. Alternatively, you may

access Launchpad and the e-book by making a standalone purchase online at http://www.macmillanhighered.com/launchpad/hillis2e/3467248. If you purchase a used textbook you will still need to purchase access to Launchpad.

See section XIII below for information on setting up your Launchpad account.

Learning Catalytics Classroom Response System (Clicker)

We will use the Learning Catalytics (LC) at www.learningcatalytics.com for quiz questions during class. LC allows students to use a cell phone (text messaging), laptop, tablet, or smartphone to participate in class.

See section XIII below for information on setting up your Learning Catalytics account.

D. Course Website (Canvas)

Class material including the syllabus, 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 Canvas, call the UF Computing Help Desk at 352-392-4357, or visit the support website: https://lss.at.ufl.edu/help.shtml.

and

IX. Email and Online 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.

All correspondence regarding the online assignments (*LaunchPad*) must be sent to the Online instructor/TA (Kristen Sauby at ksauby@ufl.edu).

To facilitate actual discussion, a discussion forum will set up in Canvas. Any questions regarding the lecture material or the online assignments should be posted there, so that your instructors, Ms. Sauby, 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/TA

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

- Course Syllabus
- Canvas announcements (this is the primary means that your Online Instructor/TA has to communicate with you in a timely manner)
- Canvas Discussion FAQ
- o Canvas Discussion General 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 Canvas Discussion section.
- o If it is a question specific to you (e.g. account or grade specific), e-mail Ms. Sauby. Barring unusual circumstances, expect a reply with 24 hours during the work week. E-mails and e-Learning Discussion posts are checked at least once per day, but sometimes not more than that.

X. Supplemental Instruction

In Supplemental Instruction (SI), a trained student peer attends the class and then leads group sessions to focus on the challenging concepts and problems in the course. SI is purely voluntary; you can attend as often as you like, provided there is space (this is a first-come, first-served program). The sessions are collaborative, in that you will be working with classmates to better understand the material. The SI leaders will show you effective strategies for studying the course material, which you will have a chance to practice together, and the SI leaders will give you a chance to ask questions or pose your own concerns.

Refer to the SI e-Learning site for the locations and schedules of the SI sessions. More information is available at the UF Supplemental Instruction Home Page: https://teachingcenter.ufl.edu/tutoring/study-groups/

XI. Assessments and Grading

A. Exams

There will be three "midterm" exams, but no cumulative "final" exam. The midterm exams will be administered during the normal class meeting times during the semester. Each exam will cover material from lecture, the online discussions, and the assigned reading in the textbook. The exams will **not** be cumulative. Each exam will be worth approximately 28% of the course grade.

All exams will be multiple-choice and machine graded. Answer sheets will be provided and must be filled in using a #2 or softer pencil. Each student must take the exam during her/his registered section time. Each student must bring her/his Gator ID to class on exam days. No student will be allowed to start an exam after the first student to complete an exam

leaves the classroom. All exams and answer sheets will be collected at the end of the exam period. No additional time will be given to complete an exam if you arrive late. No extra time will be given for filling out the scantron sheet.

1. Exam Curves

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.

2. Exam Review

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.

3. 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. Make up exams may be short-answer or essay format.

In case of illness or personal emergency on exam day, students must submit documentation to the Dean of Students office (P202 Peabody Hall, dsocares@dso.ufl.edu) and request an instructor notification to be sent. These notes must be received within five business days after the exam. Make up exams may be short-answer or essay format.

B. Online Assignments (LaunchPad)

As part of BSC 2011, you are required to complete online assignments administered through the LaunchPad site that will account for 11.5% of your overall grade. A schedule will be posted on Canvas with the due dates for each assignment. You are expected to work by yourself on the assignments and cheating will not be tolerated. *LaunchPad* grades will be transferred to UF Canvas at the <u>end</u> of each unit, but will also be viewable at any time on the *LaunchPad* website.

1. Website Address

The Launchpad website is: http://www.macmillanhighered.com/launchpad/hillis2e/3467248#/launchpad.

2. Getting Help

Online Instructor/TA: Kristen Sauby E-mail address: ksauby@ufl.edu

If at any time you have questions about the assignments, please contact the Online Instructor/TA. **DO NOT contact the Lecturer for questions about online homework completed through** *LaunchPad*.

For help with LaunchPad technical issues see "Section 6. Technical Issues" below.

3. Setting Up Your Account

You must use your Gatorlink (@ufl.edu) e-mail address, which will be your username. Using an e-mail address other than your UFL e-mail address will result in **NO CREDIT** received for assignments administered through *Launchpad*. This cannot be changed after registration; be sure to register correctly.

NOTE: if you already purchased *Launchpad* access in a different semester, you can log in using your existing username, which should be your Gatorlink email address. You will then be asked to provide your UFID number.

Steps:

- a) Go to the LaunchPad course page. Bookmark it for easy access throughout the semester.
- **b)** If you have an access code, click "I have a student access code" and follow the instructions; otherwise . click "I want to purchase access".
- c) If you are waiting on financial aid, click "I need to pay later" to create a temporary account. When this temporary access expires (in three weeks), you will need to purchase access to the site.
- d) If you have any questions or problems logging in, please contact Technical Support. Technical support will need a technical support incident ID if you continue to have trouble, so be sure to save that ID when you report your issue.

4. Grading of Online Exercises

There are several different types of assignments that students will have to complete:

- Quizzes: students will be graded based on the number of questions answered correctly out of total number of questions on the FIRST quiz submission.
- All other assignment types (activities, tutorials, etc.): students will receive full credit upon completion.

Launchpad displays your grades on assignments and their status (e.g., complete, or due in x days) in the Gradebook. The home page also will notify you of assignments' status (e.g., due in x days).

Also, there are many other resources available on LaunchPad to help you study material from your textbook, such as Diagnostic quizzes, Flashcards, Interactive chapter summaries, etc. Items that are NOT on the assignments page will not be graded, but we still strongly encourage you to use them to help you study.

5. Important information about pace

Most assignments will also have a set time limit, so make sure you have time to devote to that assignment before you begin.

Once assigned, assignments are available online at all times, from the start of the given unit up until the deadline. You will have at least three weeks to complete each set of assignments. It is especially important not to wait until just before the deadlines to complete *LaunchPad* assignments; problems usually happen at the last minute.

The assignments have been listed in an order that complements the lecture, and we recommend either going over the material for a given chapter:

- before the lecture, which may help you understand the lecture in greater detail, or
- just after each lecture to help reinforce the material and prepare for the exam.

You can always go back and re-do the assignments after you have submitted them for a grade, as a study aid.

6. Due Dates

Note that all due dates for assignments are clearly posted in the LaunchPad Gradebook and Calendar and reflect the most up-to-date information. The deadline for assignments is 11:55 p.m. on the specified date, which will be <u>two days</u> before each exam. All assignments must be completed by the stated due date and time for credit. There are NO make-ups available for *LaunchPad* assignments.

Extensions for LaunchPad assignment sets will only occur in extreme circumstances. A Dean of Students note verifying documentation of illness or a personal matter must be provided for at least five of the seven days of the week of the assignment's deadline for accommodations to be considered.

Extensions will NOT be given because of technical or personal issues that occur within 24 hours of the assignment deadline.

7. **Technical Issues**

For help with LaunchPad technical issues, contact LaunchPad Technical Support:

- Phone: 1 (877) 587-6534 (phone)
- Online support form: http://support.bfwpub.com/supportform/form.php?View=contact

Tech Support Hours (all times EST)

Monday – Thursday, 9:00 AM – 3:00 AM Friday, 9:00 AM – 11:00 PM Saturday, 11:30 AM – 8:00 PM Sunday, 11:30 AM – 11:30 PM

If there is a technical problem with accessing *LaunchPad* or a particular assignment within *LaunchPad*, you must contact *LaunchPad* technical support **FIRST**, at least 2 days before the deadline. LaunchPad tech support is the only one who can

fix technical issues with the site. Then, contact the Online Instructor/TA <u>at least 2 days prior</u> to the deadline, so appropriate steps can be taken to fix the issue.

C. In-Class Quiz "Clicker" Questions

Students will receive up to 4.9% of the total course points for participation in the in-class quizzes that are to be answered using the classroom response system (Learning Catalytics, see above).

<u>Students may not make up LC questions, regardless of the reason</u> (e.g., absence, malfunctioning cell phone, forgot to register, etc.).

It is the student's responsibility to regularly check (i.e., daily or weekly) their gradebook in LC to ensure that their submissions were correctly received, and to contact LC support to resolve any issues with submissions not being properly recorded in the LC gradebook.

1. Grading

18 course points total will be awarded for Learning Catalytics (LC) quizzes; 6 course points from each lecture unit of the course. The points earned will reflect the proportion of LC questions answered correctly in class. Each question posed will be scored as 0.75 LC points for participation with an additional 0.25 LC points for a correct answer. For each course lecture unit, full in-class quiz credit (6 course points) will be awarded to all students achieving 75% of the total possible LC points from that unit; those achieving less than 75% will receive course points in proportion to their achieved LC points (e.g. 50% of LC points earned = 3 course points).

2. Setting up Your Account

IMPORTANT: when creating your account, you must use your Gatorlink (@ufl.edu) e-mail address. Failing to do so will result in NO CREDIT received for LC units.

Please follow these instructions to register:

- a) Go to www.learningcatalytics.com
- b) On the top right, click "Register". On the next screen, click "I am a student".
- c) Select "I have an access code".
- d) Read and accept the Pearson License Agreement and Privacy Policy. Then, "Create a new Pearson account". Enter the access code on the bottom of the page:

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You must use your Gatorlink ID for your "Student ID." Example: If your e-mail address is albert@ufl.edu, use *albert*, NOT your 8-digit numerical UF ID (e.g., 1234-5678). Your Student ID should be all lowercase, and be careful not to enter a space afterwards!

If the "Username" is already taken, you may add a few numbers to the end (e.g., *albert123*). Your "Student ID" must be your Gatorlink ID however.

3. Technical Issues

For problems with Learning Catalytics, contact Pearson 24/7 Technical Support:

- Website: http://247pearsoned.custhelp.com/
- By phone: 800-677-6337 (students)
- Online Student Help: help.pearsoncmgmcom/learning_catalytics/student/en/index

LC tech support cannot recover grades for submissions that did not save unless the student provides a screenshot of their submission within 24 hours of lecture.

D. Online Pre and Post Tests

Students will receive up to 1.4% of the total course points for completion of online pre- and post- tests administered through LaunchPad.

Each of the tests is composed of 40 multiple-choice questions and will assess your knowledge of key concepts both upon entering and exiting BSC2011. You will have 1 hour to complete each test after you have begun. Your raw score will be scaled to a point value out of a total 5 points.

Your post-test grade (which should be much higher) will replace your pre-test grade at the end of the semester as long as you complete BOTH pre- and post-tests. The penalty for completing only ONE of the two tests is 2 points out of the 5 points available. The penalty for completing only the pre-test, but not the post-test, is 2 points out of the 5 points available; similarly, the penalty for completing only the post-test is also 2 points. Following are a few scenarios illustrating how your scores will be calculated:

Student	Pre-test score	Post-test score	Final Score
Α	2	4.5	4.5
В	1	4.25	4.25
С	(not taken) 0	4.5	2.5
D	3	(not taken) 0	1

The difference between the two scores on these tests will enable both you and your instructors to independently measure how much you learned throughout the semester. There are NO make-ups available for the pre- and post-tests. Each test is available at all times for several days until the deadline. It is especially important to not wait until just before the deadlines to complete the online pre- and post- tests. A computer problem happening within 24 hours of the deadline is not a valid excuse for not completing the assignment.

E. Extra Credit

Each instructor has the option of offering 2% of extra credit. *If* extra credit is offered, the same content and amount will be offered to all students. There will be no extra credit tailored to individual students.

F. Grading Summary

Assessment	Points per Unit	Total Point	% of Total Points
Exams	100	300	82.2
LaunchPad	14	42	11.5
Pre/post test		5	1.4
LC	6	18	4.9
TOTAL	120	365	100.0

All grades will be posted on Canvas (in terms of course points, i.e., the point scheme above), and it is the responsibility of the student to check their grades on Canvas and make sure they match their grades on LaunchPad and LC. If there is a discrepancy you must let us know within ONE week of the grade being posted on Canvas.

Minimum grade cutoffs are listed below. Because each exam may be curved individually (see section IX-A, above), 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%).

Point Range (%)	Letter Grade	
≥ 90.00	Α	
≥ 86.66	A-	
≥ 83.33	B+	
≥ 80.00	В	
≥ 76.66	В-	

≥ 73.33	C+
≥ 70	С
≥ 66.66	C-
≥ 63.33	D+
≥ 60	D
≥ 56.66	D-
< 56.66	E

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.

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.

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). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at: https://catalog.ufl.edu/ugrad/current/advising/info/student-honor-code.aspx#honesty.

XIII. Attendance

Students are expected to attend all classes and are responsible for all material covered during the lecture, including announcements. In addition, your attendance is necessary to earn points for "clicker" (LC) quiz questions; such points cannot be made up <u>and questions cannot be submitted from outside the classroom</u>. Students are strongly encouraged to read the assigned chapters before coming to class as this will make it easier to comprehend the lecture material. If you miss class, visit the e-Learning site for any lecture slides/notes and course announcements.

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 below.

Activity	Hours per Week		
Lectures	3		
Online Exercises	1-2		
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 be courteous and do not talk during lecture. This can be distracting to other students and the instructor. Students that are being disruptive may be asked to leave the lecture, resulting in the loss of participation points for the day.

Use of electronic devices in class to take notes or otherwise participate in classroom activities is approved. Approved electronic devices are laptop computers, cell phones, smart phones, tablets, iPod touch, and voice recording devices. Other uses of these devices or the use of unapproved devices will be considered disruptive. Unapproved electronic devices include video recorders, digital cameras and MP3 players. Students who use unapproved devices in class will be considered disruptive. Multiple disruptions will be considered grounds for the assignment of a failing grade.

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 via this website: https://evaluations.ufl.edu/evals/

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. Lecture Schedule

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

Day	Date	Topic	Chapter	Deadlines
		Dr. Davis's Plants Lectures		
Tuesday	10-May	Introduction		Pre-test opens
Wednesday	11-May	Overview; phylogenetics and plant classification	Parts of 16, 18, 19	All due by 11:55 pm: 1) Sign up for LC course 2) Create LaunchPad account 3) Complete Pre-test (in LaunchPad)

Thursday	12-May	Endosymbiosis, diversity of photosynthetic organisms	Parts of 20	
Friday	13-May	Invasion of the land	21	
Tuesday	17-May	The nonvascular plants: liverworts and mosses	21	
Wednesday	18-May	The vascular plants: form and function	21	
Thursday	19-May	Diversity of seedless vascular plants	24, 25	
Friday	20-May	Seed plants: form and function	25	
Tuesday	24-May	Diversity of flowerless seed plants	21, 24	
Wednesday	25-May	Diversity of flowerless seed plants	21	
Thursday	26-May	Flowering plants: form and function	21, 25	
Friday	27-May	Diversity of flowering plants		
Tuesday	31-May	Flowering plant physiology	21, 27	
Wednesday	1-Jun	Plant adaptations	26	LaunchPad assignments due by 11:55 pm
Thursday	2-Jun	Fungi	28	
Friday	3-Jun	Plant Unit Exam	Exam I	
		Dr. DeMarco's Animals Lectures		
Tuesday	7-Jun	Diversity & Evolution	23	
Wednesday	8-Jun	Behavior	40	
Thursday	9-Jun	Homeostasis	29	
Friday	10-Jun	Thermoregulation	29	
Tuesday	14-Jun	Digestion	30	
Wednesday	15-Jun	Gas Exchange	31	
Thursday	16-Jun	Circulatory System	32	
Friday	17-Jun	Salt/Water/Nitrogen Balance	36	
Tuesday	20-Jun	Summer Break	No Class	
Wednesday	21-Jun	Summer Break	No Class	
Thursday	22-Jun	Summer Break	No Class	
Friday	23-Jun	Summer Break	No Class	

Tuesday	28-Jun	Hormones	35	
Wednesday	29-Jun	Reproduction	37	
Thursday	30-Jun	Immunology	39	
Friday	a) 1- Jul	Nervous System		
Tuesday	5-Jul	Sensors	34	
Wednesday	6-Jul	Musculoskeleton	33	LaunchPad assignments due by 11:55 pm
Thursday	7-Jul	Exam review		77 - 22 F
Friday	8-Jul	Animal unit exam	Exam II	
		Dr. DeMarco's Ecology Lectures		
Tuesday	12-Jul	Introduction to Ecology	41	
Wednesday	13-Jul	Climate	41	
Thursday	14-Jul	Organisms	41	
Friday	15-Jul	Biomes	41	
Tuesday	19-Jul	Population-Distribution and Life Histories	42	
Wednesday	20-Jul	Population-Growth	42	
Thursday	21-Jul	Species Interactions	43	
Friday	22-Jul	Species Interactions	43	
Tuesday	26-Jul	Community Structure	44	
Wednesday	27-Jul	Community Change	44	
Thursday	28-Jul	Ecosystem Energy and Productivity	45	
Friday	29-Jul	Carbon and Climate Change	45	
Tuesday	2-Aug	Ecosystem Elemental Cycling	45	LaunchPad assignments due by 11:55 pm; Post-test opens
Wednesday	3-Aug	Extinctions and Exam Review		
Friday	4-Aug	Ecology unit exam	Exam III	Post-test due by 11:55 pm