

# BSC 2010 – Integrated Principles of Biology I

Syllabus for 6562, 6563, 6564

Fall 2016

## I. Class Meetings

Monday, Wednesday, Friday

Section 6562	Period 2	8:30 AM–9:20 AM	Norman Hall 0137
Section 6563	Period 3	9:35 AM–10:25 AM	Norman Hall 0137
Section 6564	Period 6	12:50 PM–1:40 PM	Norman Hall 0137

Online Exercises and Tutorials are continuously available; particular assignments will be posted regularly.

## II. BSC Laboratory Courses

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

## III. Instructors

### **Dr. Kin-Lan Han, PhD**

Department of Biology

Office: TBA

Office Hours: Friday, 2:00 to 3:30 PM or by appointment

E-mail: [hankin@ufl.edu](mailto:hankin@ufl.edu)

### **Dr. Stuart McDaniel, PhD**

Department of Biology

Office: 213 Carr

Office Hours: Friday, 2:00 to 3:30 PM or by appointment

E-mail: [stuartmcdaniel@ufl.edu](mailto:stuartmcdaniel@ufl.edu)

### **Dr. James Gillooly, PhD**

Department of Biology

Office: 409 Carr Hall

Office Hours: Friday, 10:40 AM to 12:30 PM or by appointment

E-mail: [gillooly@ufl.edu](mailto:gillooly@ufl.edu)

### **Katrina Cuddy** (Discussion Leader and Online Instructor)

Graduate Teaching Assistant

Department of Biology

Office: 310 Bartram Hall

Office Hours: TWR, P2 or by appointment

E-mail: [kkcuddy@ufl.edu](mailto:kkcuddy@ufl.edu)

## IV. 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 will not constitute an excuse for missing an assignment, exam, or other assessment.

## V. 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.

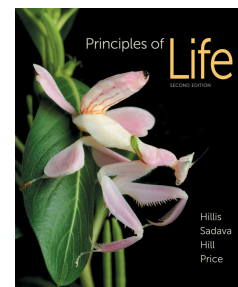
**All correspondence regarding the online assignments (*LaunchPad*) must be sent to the Online Instructor (Ms. Katrina Cuddy).**

## VI. Course Resources

### A. Textbook

*Principles of Life*, 2<sup>nd</sup> Edition, by Hillis, Sadava, Heller, & Price, Sinauer Associates and 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.



### 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. Alternatively, you may access *Launchpad* and the e-book by making a standalone purchase either online at <http://www.macmillanhighered.com/launchpad/hillis2e/3779548>. If you purchase a used textbook you will still need to purchase access to *Launchpad*.

The *Launchpad* website is: <http://www.macmillanhighered.com/LaunchPad/hillis2e/3779548>. When 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 you receiving NO CREDIT for all assignments administered through *Launchpad*. This cannot be changed after registration; be sure to register correctly.

Follow these steps to get started.

- Go to <http://www.macmillanhighered.com/LaunchPad/hillis2e/3779548>
- Bookmark the page to make it easy to return to.
- If you have an access code, click the button "Enter Your Student Access Code" in the upper right corner and follow the instructions.
- If you don't have an access code, click the "Purchase Access" button.
- 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.

**For help with *LaunchPad*, contact *LaunchPad* Technical Support:** 1 (877) 587-6534 (phone) or their online support form at <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

**C. Classroom Response System (Clicker)**

We will use the Top Hat Monocle (THM) Classroom Response System (CRS) for quiz questions during class. <https://app.tophat.com/e/086091>. THM allows students to use a cell phone (text messaging), laptop, tablet, smartphone, or an iPod touch to participate in class. Students who are enrolled in this course prior to the first day of class will receive an automated e-mail from the TopHat system with registration links. For students that enroll in this class late, follow the instructions in the “Top Hat Detailed Slides” PowerPoint presentation found in the Files section on the course’s Canvas website. For additional information on Top Hat, see the “Student Quick Start Guide” found in the Files section on the course’s Canvas website. There is also a “Top Hat Student Manual” available (see Files section on Canvas) that contains additional information. If you have problems with Top Hat, email [support@tophat.com](mailto:support@tophat.com) or click the Support button from their Top Hat account.

**D. Course Website (e-Learning)**

Class material including the syllabus, exam results, some lecture slides, and other information related to the course will be posted on the course e-Learning website (<http://elearning.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>.

**VII. Online Instruction Information**

Online Instructor: Ms. Katrina Cuddy

E-mail address: [kkcuddy@ufl.edu](mailto:kkcuddy@ufl.edu)

Please send an e-mail if you plan to come to office hours.

As part of BSC 2010, you are required to complete online assignments that will account for 12% of your overall grade. If at any time you have questions about these assignments, please contact the Online Instructor (Ms. Katrina Cuddy). **DO NOT contact the Lecturer for questions about online homework completed through LaunchPad.** Online assignments will be completed online at the *LaunchPad* website; <http://www.macmillanhighered.com/LaunchPad/hillis2e/3779548>. See instructions above (B. Online Resources and Electronic Textbook) on how to access the *LaunchPad* website. 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.** Most 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 the LaunchPad Assignments tab and reflect the most up-to-date information. On this page you can also see your grade on an assignment and its status (e.g., complete, or 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.

If you have technical difficulties, please contact **LaunchPad Technical Support: 1-(877) 587-6534 (phone)** or visit <http://support.bfwpub.com/supportform/form.php?View=contact>.

To facilitate actual discussion, a discussion forum will set up in e-Learning in Canvas. Any questions regarding the lecture material or the online assignments should be posted there, so that your instructors, Ms. Cuddy, 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 *LaunchPad* 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 Discussion FAQ
- e-Learning 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 e-Learning Discussion section.
- If it is a question specific to you (e.g. account or grade specific), e-mail Ms. Cuddy. Barring unusual circumstances, expect a reply with 24 hours. E-mails and e-Learning Discussion posts are checked at least once per day, but sometimes not more than that.

**If there is a technical problem with accessing *LaunchPad* or a particular assignment within *LaunchPad*, you must contact *LaunchPad* technical support FIRST. *LaunchPad* tech support is the only one who can fix technical issues with the site.** Then, contact 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.

#### **Grading of Online Exercises:**

The online exercises account for 11% of the total course points. There are several different types of assignments that students will have to complete. For any quizzes, you will be graded based on the number of questions answered correctly out of the total number of questions on your FIRST quiz submission! For all other assignment types (activities, tutorials, etc.) you will receive full credit upon completion. There are no make-ups available for *LaunchPad* assignments. Once assigned, assignments are available online at all times up until the deadlines. ALL *LaunchPad* assignments for a section of the class (i.e., all the lectures given by a particular instructor) are due at 5:00 pm the DAY BEFORE the exam covering that section (for example, if the exam is on the 4th, *LaunchPad* assignments are due by 5:00 pm on the 3rd). Because they are assigned far in advance of the due date, *LaunchPad* assignments that are not completed by the due date CANNOT BE MADE UP, with one exception: If there is a technical problem with accessing *LaunchPad* or a particular assignment within *LaunchPad*, you must contact *LaunchPad* 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 at least 48 hours before the deadline.

#### **Important information about pace:**

We are giving you all of the assignments for each third of the course at once, and giving you at least three weeks or more to complete them. You have the freedom to go at a pace of your choosing, but you should not leave yourself too much work at the deadline. The assignments have been listed in an order that complements the lecture. You may go over the material for a given chapter before the lecture to better

understand the lecture, or just after each lecture to help reinforce the material and prepare for the exam. The only thing we do not recommend is to leave all the assignments until right before the deadline! You can always go back and re-do the assignments after you have submitted them for a grade, as a study aid.

To reiterate, deadlines are at 5:00 pm on specified dates, which will be the day before each exam.

**LaunchPad grades will be transferred to the UF E-learning website after each exam, but will also be viewable at any time on the LaunchPad website.**

## VIII. 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/supplemental\\_instruction.html](https://teachingcenter.ufl.edu/supplemental_instruction.html).

## IX. 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 semester and during the normal class meeting times. 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. Please be aware that filling in the scantron sheets is part of the exam; no extra time at the end of the class period will be given for filling out the scantron sheets.

Each exam will be curved using the following approach: The top 3% of the scores in the class will be averaged, and the difference from 100 points will be added to each individual 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 will be short-answer, problem, and/or essay format (i.e., no multiple-choice).

#### B. Online Assignments

Students will receive up to 12% of the total course points for participation in the online exercises, and for performance on online assessments. Additional information about the *LaunchPad* exercises and assessments will be provided by the Online Instructor (see also Section VII, above).

There are **NO** make-ups available for *LaunchPad* assignments. Once assigned, assignments are available online at all times until the deadlines. Because a full week (or more) is dedicated to the completion of each *LaunchPad* assignment, 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 made. It is especially important to not wait until just before the deadlines to complete *LaunchPad* assignments.

#### C. In-Class Quiz "Clicker" Questions

Students will receive up to 5% of the total course points for participation in the in-class quizzes that are to be answered using the classroom response system (Top Hat Monocle, see above). To clarify, 18 points total will be awarded for Top Hat Monocle (THM) quizzes; 6 points from each lecture unit of the course. The points earned will reflect the proportion of THM questions answered correctly in class. Each question posed will be scored as 0.75 THM points for participation with an additional 0.25 THM 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 50% of the total possible THM points from that unit; those achieving less than 50% will receive course points in proportion to their achieved THM points (e.g. 25% of THM points earned = 3 course points for one lecture unit).

Students may not make up THM questions, regardless of the reason (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 THM to ensure that their submissions were correctly received, and to contact THM support to resolve any issues with submissions not being properly recorded in the THM gradebook in a timely manner.

#### D. Extra Credit

No mechanisms for extra credit are available.

#### E. Grading

Assessment	Points per Unit	Total Point	% of Total Points
Exams	100	300	83.33
<i>LaunchPad</i>	14	42	11.67
THM	6	18	5.00
<b>TOTAL</b>	<b>120</b>	<b>360</b>	<b>100.00</b>

All grades will be posted on e-Learning (in terms of course points, i.e., the point scheme above), and it is the responsibility of the student to check their grades on e-Learning and make sure they match their grades on *LaunchPad* and THM. 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 below. Because each exam is 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	A
≥ 86.66	A–
≥ 83.33	B+
≥ 80.00	B
≥ 76.66	B–
≥ 73.33	C+
≥ 70.00	C
≥ 66.66	C–
≥ 63.33	D+
≥ 60.00	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>.

#### F. 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.

### X. Academic Honesty

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

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

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

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

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>.

### XI. Attendance

Attendance is not required, but 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" (THM) quizzes. 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.

## XII. 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. 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 12 hours per week on average for these activities, discuss this with your course instructor to see if you can refine your study habits. If you find yourself spending less than 9 hours per week on average, you should recognize that you may have difficulty learning and comprehending the material in this time, which could affect your grade.

## XIII. Conduct in Class

Please be courteous and do not talk during lecture. This can be distracting to other students and the instructor.

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.

## XIV. 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.

## XV. 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/>).

## XVI. Lecture Schedule

Lecture topics for this course are listed below. This is a tentative schedule; the dates and coverage of specific topics are subject to change.



Date	Lecture #	Topic	Chapter
		<b>Dr. Han's Cells/Biochemistry Lectures</b>	
Mon. Aug. 22	1	Introduction	1
Wed. Aug. 24	2	Principles of Life	1
Fri. Aug. 26	3	Atoms and Molecules	2
Mon. Aug. 29	4	Carbohydrates and Lipids; Biochemical Changes Involve Energy	3
Wed. Aug. 31	5	Nucleic Acids and Proteins	3
Fri. Sep. 2	6	Proteins (cont.) and Enzymes	3
Mon. Sep. 5		<b>LABOR DAY – NO CLASS</b>	
Wed. Sep. 7	7	Cells, Prokaryotic Cells, and Eukaryotic Cells	4
Fri. Sep. 9	8	Eukaryotic Cells (cont.), Cytoskeleton, and Extracellular Structures	4
Mon. Sep. 12	9	Cell Membranes	5
Wed. Sep. 14	10	Cell Membranes (cont.) and Signaling	5
Fri. Sep. 16	11	Metabolism	6
Mon. Sep. 19	12	Cellular Respiration	6
Wed. Sep. 21	13	Photosynthesis	6
Fri. Sep. 23		<b>EXAM 1 - In Class</b>	
		<b>Dr. McDaniel's Genetics Lectures</b>	
Mon. Sep. 26	1	Introduction and Cell Cycle	7
Wed. Sep. 28	2	Mitosis	7
Fri. Sep. 30	3	Meiosis	7
Mon. Oct. 3	4	Mendelian Genetics	8
Wed. Oct. 5	5	Extensions of Mendelian Genetics	8
Fri. Oct. 7	6	Chromosomes and Linkage	8
Mon. Oct. 10	7	Search for DNA, Replication, Central Dogma	9
Wed. Oct. 12	8	Transcription	10
Fri. Oct. 14		<b>Homecoming-No Class</b>	
Mon. Oct. 17	9	Translation	10
Wed. Oct. 19	10	Mutations	7,9
Fri. Oct. 21	11	Gene Expression	11
Mon. Oct. 24	12	Genomes and Genomics	12
Wed. Oct. 26	13	DNA Technology	13,9
Fri. Oct. 28		<b>EXAM 2 - In Class</b>	
		<b>Dr. Gillooly's Evolution Lectures</b>	
Mon. Oct. 31	1	Introduction to Evolution	15, 41.1

Wed. Nov. 2	2	Natural Selection	15
Fri. Nov. 4	3	Microevolution I	15
Mon. Nov. 7	4	Microevolution II	15
Wed. Nov. 9	5	Sexual Selection and the Evolution of Sex	15
Fri. Nov. 11		<b>Veteran's Day-No Class</b>	
Mon. Nov. 14	6	Macroevolution: Origin of Species	17
Wed. Nov. 16	7	Macroevolution: Speciation and Extinction	17
Fri. Nov. 18	8	Introduction to Phylogenetics	16
Mon. Nov. 21	9	Applications of Phylogenetics	16
Wed. Nov. 23		<b>THANKSGIVING BREAK – NO CLASS</b>	
Fri. Nov. 25		<b>THANKSGIVING BREAK – NO CLASS</b>	
Mon. Nov. 28	10	Human Evolution	23.6, 23.7, TBA
Wed. Nov. 30	11	Origins and Early Diversity of Life I	18, 19.1 & 20.1
Fri. Dec. 2	12	Origins and Early Diversity of Life II	18, 19.1 & 20.1
Mon. Dec. 5	13	TBA	
Wed. Dec. 7		<b>EXAM 3 - In Class</b>	