BIOL 116 – ORGANISMS & ENVIRONMENTS
SPRING 2014
*subject to revision

Stacey Dunn, Ph.D.
Life Sciences South 260
208-885-4095
sdunn@uidaho.edu
Office Hours: Mon 1-2pm, Tues 1:45-2:45pm

CLASS TIME/LOCATION:
Lecture: MWF 10:30-11:20am in TLC 046
Lab: Days/times vary. All lab sections meet in LSS 351. You may only attend the lab section for which you are registered. You will receive contact and office hour information from your lab section's TA at the first lab meeting.

COURSE DESCRIPTION: In this course, you will be introduced to the evolution of diversity and the biology of organisms and their environments. Additionally, you will be exposed to current research in fields such as evolution, phylogenetics, biology, ecology and conservation biology. In lab, you will synthesize concepts learned in class while learning practical laboratory techniques and skills. Topics to be introduced in this course include: evolution and history of life, diversity of life, ecology and conservation biology.

LEARNING OUTCOMES:
Learn & Integrate: Students will synthesize biological knowledge gained in BIOL 115 with knowledge gained from BIOL 116 lectures, homework and labs, to attain an understanding of evolution, biological diversity and ecology.

Think & Create: Students will synthesize and apply their knowledge of biological processes by forming hypotheses, conducting hands-on laboratory experiments and producing laboratory reports.

Communicate: Students will become conversant in the language used in biology, and will practice the language of biology during laboratories and in small groups. Students will practice scientific writing by producing a laboratory notebook and laboratory reports.

Clarify Purpose & Perspective: Students will gain an understanding of the evolutionary context of living organisms (including humans), as well as the role(s) different organisms play in their environment.

Practice Citizenship: Students will attain basic biological knowledge, which will allow them to make informed contributions to discussions of issues that impact humans and the environment, for ex: biodiversity, conservation biology, climate change, evolution education, etc…

PREREQUISITES: You must have passed BIOL 115 and CHEM 101 or CHEM 111 to enroll in BIOL 116. No exceptions.

COURSE WEBSITE: https://bblearn.uidaho.edu/webapps/login/
The course website will include a copy of the syllabus, lecture and lab schedule and notes, assigned readings, access to MasteringBiology (required), links to online quizzes/follow-up assignments, links to tutorials (including BIONet and MasteringBiology) and supplementary material, current grades, additional lab materials, etc… This will also be my primary form of communication with you outside of class. Check the website often!

EMAIL:
I may communicate with you by university-sponsored email. Please be sure to check your email account often, and ensure that my email address is not blocked.

GRADING:
Four comprehensive exams @ 100 points each = 400 points
Ten online quizzes/follow-up assignments @ 10 points each = 100 points
Lecture participation (i>clickers) = 25 points
Lab assignments: points per assignment vary = 130 points
Lab practical = 30 points
Lab participation = 15 points
Project/presentation = 55 points
Total = 755 points

GRADING SCALE:
Total ≥ 90% = A
90% > Total ≥ 80% = B
80% > Total ≥ 70% = C
70% > Total ≥ 60% = D
Total < 60% = F

EXAMS:
Exams will cover material from lectures, assigned readings, assigned content on MasteringBiology, and concepts covered in lab. The material we will cover builds upon itself. We will often refer back to concepts covered in previous lectures and units. For this reason, all exams are comprehensive, though the focus of each exam will be on the current unit. You will have four unit exams, each worth 100 points. There will also be an *optional* comprehensive final held during finals week. This final can be used to replace your lowest exam score, assuming that it increases your grade. It will not be counted if it lowers your grade. You will be given the opportunity to view your exams and ask questions about grading, however I do retain all exams in my possession. Be warned that I typically DO NOT curve individual exams, so please don't ask. I may *consider* a curve of final grades at the end of the semester, but only after *all grades* (including the final exam) have been counted. There is *no guarantee* that I will curve grades.

QUIZZES/FOLLOW-UP ASSIGNMENTS:
You will take a weekly quiz and follow-up assignment online in order to prepare you for the comprehensive exams. Questions will be similar to what may be found on exams. Quizzes will cover material from lectures, assigned readings, assigned content on MasteringBiology, and concepts covered in lab. All quizzes are comprehensive. Quizzes will be found online on the MasteringBiology/Bblearn website.

MasteringBiology is an adaptive online learning tool. Initially, you will take a quiz worth 5 points. Questions are chosen randomly from a pool of questions that I have assigned. If you score 90% or higher on your quiz, you will be exempt from the follow-up assignment and will automatically receive an additional 5 points for that assignment in the gradebook. If you score lower than 90% on the quiz, you will be led through an individualized follow-up assignment that focuses on your knowledge gaps. This system provides individualized feedback, so student follow-up assignments will vary. (Technology at its finest!) Follow-up assignments are worth 5 points each, based on completion.

Quizzes will open on Monday at 8:30am and close on Friday at 11:59pm. Follow-up assignments are due 48 hours later. It is your responsibility to finish the quiz and follow-up assignment before each closes. Keep in mind that computer/internet issues can arise, so it is in your best interest to plan ahead and take each quiz early in the week.

You will have one quiz/follow-up assignment per week, with the exception of Week 1 and exam weeks. There will be 10 quizzes/follow-up assignments total for the semester, plus one *optional* make-up quiz/assignment during dead week. This quiz can be used to replace your lowest quiz/assignment score or a missed quiz. Aside from the optional quiz during dead week, there will be *no make-ups* allowed for missed quizzes/follow-up assignments.

If you have trouble accessing MasteringBiology, contact me early in the semester! I can help ensure that you are registered and able to access the quizzes and homework. I will not reopen quizzes/homework for you if you have not contacted me about technical issues prior to the quiz deadline.

LECTURE PARTICIPATION (i>clickers):
Attendance at lectures is strongly recommended. We will be using the i>clicker system during lecture this semester as a way for you to engage with me and with the material. This will also be an opportunity for you to practice the types of multiple-choice questions that may show up on exams.

Early in the semester, I will distribute i>clickers to all students. Your i>clicker number will be tied directly to your student ID number. You are responsible for that i>clicker throughout the semester. The i>clicker is ON LOAN to you, and MUST BE RETURNED at the end of the semester or you will receive an automatic 0 for your lecture participation grade. If you drop the course, please return the i>clicker to me ASAP.

Your lecture participation grade will be based on *attempts* at answering questions posed in lecture, not on whether your answer is right or wrong. If you attend class regularly and attempt to answer at least 75% of the questions posed throughout the semester, you will receive 25 participation points. If you attempt less than 75% of clicker questions, your participation grade will be prorated.

There will be **no makeups** for i>clicker questions missed if you are absent from lecture (whether the absence is excused or not).

LAB ASSIGNMENTS:
The lab schedule, lab procedures and pre- and post-lab assignments can be found online on Bblearn. To prepare for lab, you are required to read each week's lab instructions prior to your lab meeting time. Pre-lab assignments are due at the start of each lab meeting; no late pre-lab assignments will be accepted. Your first pre-lab assignment should be completed prior to your first lab meeting (the week of 1/20). At the end of each lab meeting, you will need to check out with your TA. This is to ensure that you have completed all of the necessary steps in the lab, any in-lab assignments, and that you are on the right track with your results. Post-lab assignments are due the following week at the beginning of your lab meeting time. Assignments turned in during the first 24 hours after your normal lab meeting time will be reduced in value by 50%. Late assignments will not be accepted after 24 hours following your normal lab meeting time. TA's will determine final lab assignment grades.

All assignments should be typed, and a hard-copy turned in to your TA, unless directed otherwise.

You should keep a 1.5 or 2-inch binder just for lab materials – i.e., lab procedures, pre-lab and post-lab assignments, and loose-leaf, three-hole punch paper for note-taking during lab. Bring this to lab every week. If you keep everything organized throughout the semester, you will have a useful guidebook from which to study for exams or to refer to in the future.

LAB PRACTICAL:
The diversity segment of Biol 116 culminates with a lab practical based on material covered in pre-lab questions, in-lab procedures/discussions and in-lab and post-lab questions.

LAB PARTICIPATION:
Attendance at all lab meetings is mandatory. You will lose 3 participation points for arriving more than 10 minutes late to a lab meeting. You will lose 5 participation points for each lab meeting missed (up to three lab meetings total). Also, you will receive a 0 on the lab assignment for which you did not attend the lab meeting. Aside from mandatory attendance, your participation points are based on end-of-lab meeting checkouts (microscope returned in clean, working order; lab bench supplies reorganized and/or restocked; lab area cleaned up; etc…) and sample collection as assigned. Deduction of any lab participation points is at the discretion of your TA.

PROJECT/PRESENTATION:
You will complete both an individual and a group project during the semester. You will receive more information on these assignments as the semester progresses.

EXCUSED ABSENCES
Only students with written medical excuses from a doctor or written official university excuses will be allowed to make up missed exams, quizzes, or lab assignments. *Final acceptance of makeup work is at the discretion of the instructor.* Arrangements must be made at least ONE WEEK PRIOR to your absence in the case of known schedule conflicts (ex: participation in official university sporting events, course field trips, etc…), or makeup work will not be accepted. In the case of illness (with a valid doctor's note), and under the instructor's final discretion, makeup work will be accepted if arranged before or immediately following the absence (i.e., the same day as the missed lab/exam). Makeup work may differ from the original quiz, exam or lab assignment.

GRADE DISPUTES:
If you feel that an exam or lab assignment has been graded incorrectly, you have 48 hours after receiving the graded assignment to dispute your score. You must return the exam or assignment to your instructor or TA, along with a written request for regrading. Final grade assignment is at the discretion of the instructor or TA.

COMMUNICATION:
Spelling, grammar, punctuation, logic and legible handwriting are critical elements of communication. You may lose points on quizzes, exams and/or lab assignments for misspelling, poor grammar or syntax, improper punctuation, flawed logic or illegible handwriting.

READINGS:
Reading assignments will be listed on the course website. These should be read ahead of time in preparation for the class time for which they are listed.
Required textbook: Reece *et al*. 2011. *Campbell Biology*, 9th edition. Published by Benjamin Cummings (Pearson).

MASTERING BIOLOGY:
Required online material: *MasteringBiology* (Pearson) – access required.
www.masteringbiology.com

LABORATORY:
Required lab manual: Adams and Crawley. 2013. *Van de Graaff's Photographic Atlas for the Biology Laboratory*, 7th edition, Morton Publishing Co.
You need to bring this lab manual with you to each lab meeting. Additional lab materials should be accessed and printed from Bblearn prior to lab meeting each week.

ACADEMIC HONESTY:
Refer to Article II of the UI Student Code of Conduct (http://www.uidaho.edu/DOS/judicialaffairs/studentcodeofconduct/articleii). Plagiarism or academic dishonesty will not be tolerated in any form. Offenses will lead to an F on the assignment or in the class, letters to your Department Chair and College Dean, and a formal complaint filed with the Dean of Students. Be aware than even one incident of academic dishonesty may result in expulsion from the university.

CLASSROOM BEHAVIOR
The following behaviors are rude to the instructor and fellow students, and are considered unacceptable behavior for class and lab: ringing cell phones, use of cell phones for talking or texting, web surfing, sleeping, reading extraneous material, chatting with neighbors, etc… The instructor or TA reserves the right to dismiss students from class (with appropriate grade deduction for missed assignments) that display any of these behaviors. Repeated violations may result in an F on that day's quiz/exam/lab homework, an F in the course, and/or removal from the course.

UNIVERSITY OF IDAHO CLASSROOM LEARNING CIVILITY CLAUSE
In any environment in which people gather to learn, it is essential that all members feel as free and safe as possible in their participation. To this end, it is expected that everyone in this course will be treated with mutual respect and civility, with an understanding that all of us (students, instructors, professors, guests, and teaching assistants) will be respectful and civil to one another in discussion, in action, in teaching and in learning. Should you feel our classroom interactions do not reflect an environment of civility and respect, you are encouraged to meet with your instructor during office hours to discuss your concern. Additional resources for expression of concern or requesting support include the Dean of Students office and staff (885-6757), the UI Counseling & Testing Center's confidential services (885-6716), or the UI Office of Human Rights, Access & Inclusion (885-4285).

ACADEMIC SUPPORT; TUTORING & COLLEGE SUCCESS
If you find that you need further assistance with course material outside of the classroom, you are encouraged to contact the Academic Support Office (http://www.uidaho.edu/studentaffairs/asap) or the Tutoring & College Success Office (http://www.uidaho.edu/studentaffairs/asap/tutoring-and-college-success).

DISABILITY SUPPORT SERVICES
Disability Support Services Reasonable Accommodations Statement: "Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through Disability Support Services located in the Idaho Commons Building, Room 306 in order to notify your instructor(s) as soon as possible regarding accommodation(s) needed for the course."

Phone: 208-885-6307
Email: dss@uidaho.edu
Website: www.uidaho.edu/dss

Please notify the instructor during Week One of classes if accommodations are required.

TENTATIVE SCHEDULE FOR **UNIT 1** (*subject to change!):

WEEK	DATE	TOPIC/EVENT	READINGS	QUIZ DUE	LAB
1	15-Jan	Introduction			No lab this week
	17-Jan	Evolution review	Review Ch. 22-24	No quiz	
2	20-Jan	NO CLASS!			Winogradsky columns, bean seedlings
	22-Jan	Evolution cont.; History of life	Ch. 25		
	24-Jan	History of life		Quiz 1	
3	27-Jan	Phylogeny & tree of life	Ch. 26		Fossils, phylogeny, bacterial smear
	29-Jan	Phylogeny & tree of life			
	31-Jan	Guest speaker?		Quiz 2	
4	3-Feb	Viruses	Ch. 19		Tobacco mosaic virus, sterile technique
	5-Feb	Viruses			
	7-Feb	Bacteria and Archaea	Ch. 27	Quiz 3	
5	10-Feb	Bacteria and Archaea			Bacterial species ID
	12-Feb	Bacteria and Archaea			
	14-Feb	**EXAM 1**		No quiz	

FUTURE (TENTATIVE) EXAM DATES (*subject to change!):
Friday, March 14 – Exam 2
Friday, April 11 – Exam 3
Week of April 14 – Lab practical during assigned lab section
Friday, May 2 – Exam 4
Thursday, May 15, 10am-12pm – Optional final exam

PLEASE REFER TO BLACKBOARD FOR CURRENT SCHEDULE (TOPICS, EVENTS, READING ASSIGNMENTS, QUIZZES/FOLLOW-UP ASSIGNMENTS, LABS, ETC...)!