

I. General Information:

Professor: Dr. Kenneth Schoenly
 Office: N271
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Credits: 1 unit
 Lab Room: N223
 Office Hrs: MWF 9-10:00 & by appointment

II. **Lab Text:** *World of Biology: Biology 1020*, 5th Edition, by Stevens et al (2009). Always bring to class. The text from your lecture class will also be helpful for all labs.

III. Student Learning Goals

1. To provide an overview of basic knowledge, principles, methodologies, theories, & perspectives in biology.
2. To offer opportunities to work in groups with other students to practice effective communication about concepts & issues in biology.
3. To provide a broad understanding & appreciation of biology & encourage continuous inquiry & lifelong learning.
4. To provide the framework to critically evaluate & use information from various scientific sources to answer questions relevant to biology.
5. To understand the relationships between the fields of biology, chemistry, physics, geology & other sciences.
6. To appreciate the interdependence of humans, natural ecosystems, & diversity of life on earth.
7. To develop more informed & responsible citizens with respect to issues concerning the living world.

IV. The Course

“*World of Biology*” 5th edition, is designed to provide you with laboratory and field experience in various areas of biological science. We will explore many of the topics that are covered in BIOL 1010: Principles of Biology, although this lab course is graded separately. **Student-athletes and DRS students need to notify me at the 1st lab meeting.**

Grading: Grades will be based on laboratory write-ups, quizzes, and an optional final in lab. No other points will be available and scores will not be “curved”. As per university regulations, students who miss the first day will be dropped from the class. **Completed write-ups are due at the beginning of the next laboratory session** (no exceptions). I will grade only five (5) and you will not be told in advance which ones I will grade. Thus, your best strategy is to complete and turn in all write-ups (these will also help you succeed on lab quizzes and the comprehensive final should you choose to take the latter). Write-ups will be graded based on completing all the questions, data collection, and graphs/diagrams requested. **Late write-ups and write-ups from unattended labs will not be accepted.** You will work in groups of 2 to 4, however, each student must turn in his/her own write-up for each lab; *photocopies will not be accepted*. **Do not simply write the same answers as your lab partner (this will cost you points)**. Instead, summarize your findings in succinct terms and use your own wording. Science is not a spectator’s sport and active participation is required to do the hands-on exercises. This also includes doing your own work, proper classroom demeanor, proper use and care of equipment and materials, and following health and safety regulations.

| Grade | Points |
|--|------------|
| Ten (11) quizzes @ 10 pts each, lowest one will be dropped | 100 |
| Five (5) write-ups @ 10 pts each | 50 |
| Optional comprehensive final | 30 |
| Total | 150 or 180 |

A = 100-90%, B = 89-80%, C = 79-70%, D = 69-60%, F <60%, CR > 69%, NC < 70%. No +/- grades will be awarded.

Grading Options: September 19 (census date) is the last day you may change your grading option. No exceptions. To do so you must have your instructor sign an add/drop form. It is your responsibility to turn this form in to Admissions and Records (A&R). Your instructor will strictly follow the grading option indicated on the final roll supplied by A&R. Consult with your advisor before making your decision. Grades will not be changed once they have been submitted.

Executive Order 1037 (effective August 2009) allows students to only repeat a course twice and in which they have earned less than a C grade. Students are only allowed to replace the first 16 units they repeat; those reaching the 16 unit limit may repeat an additional 12 units, but the resulting grade is averaged with all other grades.

V. Laboratory Policies:

World of Biology is a laboratory course and as such requires your active participation. It will be impossible to pass this course without regular (every week) attendance. As per university regulations, students with excessive absences will be dropped from the lab. Because the lab setup changes from week to week, it is not possible to make up missed labs. **Unexcused absences will result in no points for attendance and lab write-ups, and makeup quizzes will not be available (this includes scheduling other appointments or activities during lab time).** You can drop your lowest quiz or one that has been missed. **Turn off cell phones, blackberries, pagers, and beepers upon coming to class and leave them off during lab.** Allow at least 1 week for quizzes and write-ups to be graded and returned.

Personal Integrity: Behavior that interferes with the instructor's ability to teach or the ability of students to benefit from instruction will not be tolerated. Examples of such behavior include: audible ring tones, late arrivals, early departures, irrelevant conversation, and inappropriate use of phones or computers. Inappropriate behavior will be dealt with as severely as university regulations allow. In addition, misuse of lab materials (including incorrect use of microscopes) will result in lost points and may result in grades being withheld until the department has been compensated for damaged materials. Behavior that is not consistent with the Student Conduct Code – including any form of academic dishonesty – will result in immediate expulsion from the course, a failing grade, and the matter will be referred to the Office of Student Judicial Affairs.

There are, in fact, two things, science and opinion; the former begets knowledge, the latter ignorance.
-- Hippocrates, father of Western medicine

Quizzes will begin promptly at 2:00 pm. If you are late then you will have less time (or none at all) to complete the quiz. If you arrive after the quiz, there will be no make-up. I have a zero tolerance for cheating. Anyone caught cheating on a quiz or final will receive an F for the class and the matter will be turned over to the Dean of Students. Submitting write-ups for another student or when absent is also cheating. The final is optional. It will be comprehensive, stressing questions from previous quizzes and write-ups. After quizzes and exams, you have one week to dispute scores; no scores will be changed after that date.

Tips for Success:

This course (lab and lecture) has a reputation for being challenging, however, it can be made much easier (and fun!) if you heed the following advice:

- Attend and actively participate in labs.
- Preview relevant material before lab.
- Take good notes in lab (and lecture) and review them often.
- Make use of a dictionary and thesaurus.
- If you have questions, please ask.

Implied Contract: This syllabus serves as a contract between you and the instructors. Your continued enrollment in the lab denotes your understanding of and agreement with the material in the syllabus as well as the lab safety information you read in week 2. You are expected to keep this syllabus in your notebook and refer to it throughout the semester.

For most of the laboratories, you will work in groups of 2 or 4 students. However, **each of you will hand in your own write-up. Write-ups are due at the beginning of the next laboratory period** and will be graded based on completing all the questions, data collection, and graphs/diagrams requested.

VI. Laboratory Schedule†

| Week | Date | Laboratory |
|------|-------|---|
| 1 | 8/21 | No Labs |
| 2 | 8/28 | Attendance, Syllabus, Lab Safety, Critical Thinking DVD |
| 3 | 9/4 | Nature of Scientific Inquiry (pp. 1-11) |
| 4 | 9/11 | Cells, Microscopes & Measurements (pp. 13-27)* |
| 5 | 9/18 | Transport (pp. 29-39)* |
| 6 | 9/25 | Metabolism (pp. 41-47)* |
| 7 | 10/2 | Cell Cycle & Mitosis (pp. 49-55)* |
| 8 | 10/9 | Genetics (pp. 57-72)* |
| 9 | 10/16 | Phylogenetic Trees (handouts)* |
| 10 | 10/23 | Evolution, bring calculator (pp. 73-81)*,** |
| 11 | 10/30 | Plant Adaptations (pp. 81-95)* |
| 12 | 11/6 | Animal Adaptations (pp. 97-107)* |
| 13 | 11/13 | Population Parameters, bring calculator (pp. 109-122)* |
| 14 | 11/20 | CA Ecology (pp. 123-134)* |
| 15 | 11/27 | Thanksgiving Week, No Labs |
| 16 | 12/4 | Last write-up due, Optional final |

†The above schedule and procedures in this course are subject to change in the event of extenuating circumstances.

*Quiz over previous week's lab given at start of lab.

**Dress for outdoors

VII. Recording Policy:

Audio or video recording of classes (tape or digital format) is not permitted under any circumstances. If you do not intend to comply with this policy, please discuss this with the instructor or take another lab. An exception is made for students registered with Disability Resource Services, who are approved for this accommodation. In such exceptions, DRS students will be asked to sign a "Recording Agreement" which disallows them from sharing recordings with other individuals unless approved by the DRS program.