

BIOL 1020-004: "World of Biology"
CSU Stanislaus
Course Syllabus

Instructor: Dr. Michael Fleming

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Office Hours: Wednesdays 11am-12pm, Thursdays 2:30-3:30pm, or by appointment

Labs: Wednesdays, 8-10:50am, 223 Naraghi Hall (a.k.a N-223)

Text: *World of Biology 1020 Laboratory Workbook, 5th ed. by Stevens and Fleming (2012)*. Please bring this text to lab each week. Note also that the lecture textbook from BIOL 1010 may also be useful for labs.

Announcements: Check your email and Blackboard for updates and information.

Course Description: World of Biology satisfies the lower division area B general education lab requirement. The course is intended to provide students with laboratory experience in various biological contexts, mostly related to concepts covered in BIOL 1010. Note that while this class does parallel BIOL 1010 closely, it is taken and graded separately from BIOL 1010.

Objectives: After completing this course you should be able to (1) demonstrate your ability to think like a biologist, (2) speak/write coherently about biology with biologists and non-biologists alike, and (3) use biological knowledge to make informed decisions in your life.

My Teaching Philosophy: I will work hard and use multiple ways of learning to help you succeed in this course. Hopefully we'll also have a few laughs as we go along.

Class Participation: Please arrive to class on time and ready to learn. Assignments are due at the start of class. You will talk and work frequently in small groups, and sometimes present your ideas to the entire class. Most importantly, please do not disrupt the learning environment, rights, and property of others. Of course, all gadgets not conducive to learning in the course, such as cell phones/iPods/etc. should be turned off during class. Be honest, hold yourself accountable for your actions, and hold me accountable for mine.

Evolution: "Respect for data, comfort in faith." Someone much wiser than me came up with this saying. If you can live by it then you'll be fine in this class. Evolution and natural selection are central tenets of biology and will be critical aspects of this course, openly discussed and referred to frequently.

Math: Every biologist uses math and statistics. In this course you will use some math as it applies to biology; this mostly includes making and interpreting graphs, and may also include calculating averages and variation around an average. I will help you and there will be chances to practice. NOTE: a calculator is good for this class, and knowing how to use MS Excel effectively is better.

Lab Policies: 1) Safety. 2) Teamwork. 3) Data.

Please demonstrate proper care for and use of lab materials and supplies. A safe lab is a productive lab. Please report any spills, broken equipment and any other safety concerns to me immediately. If you see something, say something!

Like any lab course, this one requires your active participation each week, frequently in group situations. Your lab partners depend on you (and you on them) for your help in working through each lab. This includes proper set up of experiments, data collection, and thoughtful interpretation of results. In most

labs you will work in small groups of 2-6 people, but each student is required to hand in their own work, due at the beginning of the next lab meeting.

As per university regulations, students who miss the first lab or have excessive tardies/absences will be dropped from the course. Note that, since the lab set-up changes each week, it is very unlikely to make up missed labs. Unexcused absences always result in no points for the week. **Quizzes begin promptly at 8AM.** If you are late you will have less time (or none!) to complete the quiz, so please make every effort to arrive on time.

The final exam for this class is optional! It will be comprehensive and structured similar to lab quizzes.

Cheating and Plagiarism: Don't do it! Your work should reflect your own effort and words. Any verified instance of cheating and/or plagiarism will be unpleasant for all involved.

Recording Lectures and Special Accommodations: This course is ADA accessible. Students with documented disabilities should seek special accommodations for all classes through the Disability Resource Services office on campus. If DRS notifies me that you require ADA accommodations, then I will provide you those accommodations, such as recording my lectures. Otherwise, you have to do it the old-fashioned way with pen and paper. If you record my class in any form (video, audio, still pictures, etc.) without accommodation from DRS, that constitutes intellectual property theft and will be a bad situation for all involved. Student athletes who will miss class for games/matches should have their coach contact me, and I will accommodate your schedule by allowing alternate lab dates and/or excusing points missed in class.

Important Dates: The last day to add the class is Feb. 7th. Census Date is Feb. 21st. This is the last day to drop the course or change your grading option without my signature; it is your responsibility to submit the grade change form to Admissions and Records by 5pm that day. Mar. 26th is the last day to change your grading option with my signature. I strictly adhere to the grading option Academic Records has on file for you when I submit final grades. I will not change grades once final grades have been submitted.

Grading: All materials will be graded and returned to you the following lab period. Grades are based on lab write-ups, quizzes, participation, and the optional final exam. No other points are available. Write-ups are graded based on completing all questions, data collection and careful presentation of graphs/diagrams. **I will grade only five lab write-ups over the term; I will not tell you in advance which these will be,** so your best bet is to turn them all in on time. We will go over all lab write-ups and quizzes in class and you will have an opportunity to see a key to check your answers for correctness. Late work will not be accepted except in dire emergencies; you must provide documentation of hardship. All submitted work must be original; photocopies are not acceptable.

Assignment	Points
12 quizzes x 10 pts. each (lowest 2 scores dropped)	100
5 write-ups x 20 pts. each	100
8 write-ups submitted, not graded, 5pts. each	40
Final exam, optional, comprehensive	40
TOTAL	240 or 280

I calculate grades as a function of grade point average (GPA) where A=4.0 and D=1.0 (I will show you an example of this in class). Students find this method fair and equitable. **I give + and – grades** as follows:

4.0-3.8 = A 3.7-3.6 = A- 3.5-3.3 = B+ 3.2-3.0 = B 2.9-2.6 = B- 2.5-2.3 = C+
 2.2-2.0 = C 1.9-1.6 = C- 1.5-1.3 = D+ 1.2-1.0 = D 0.9-below = F
 CR = 1.7 or higher NC = 1.6 or lower

Tentative Lab Schedule:

Week	Date (WEDNESDAYS)	Activity
1	29 Jan	Attendance, Safety
2	5 Feb	Nature of Science
3	12 Feb	Cells & Microscopes
4	19 Feb	Transport
5	26 Feb	Metabolism
6	5 Mar	Cell Cycle & Mitosis
7	12 Mar	Genetics & Meiosis
8	19 Mar	Phylogenetic Trees
9	26 Mar	Evolution (outside, bring calculator)
10	2 Apr	Plants
11	9 Apr	Animal Adaptations
12	16 Apr	Population Parameters
13	23 Apr	<i>Spring Break, no lab!</i>
14	30 Apr	Central CA Ecology
15	7 May	Last write-up due, optional Final Exam