

Syllabus

Biology 74: Scientific Communication

Fall 2013

Weds. 6PM-8:50 PM, room B201

Instructor: Dr. Marina Crowder

Email: mellefsoncrowder@peralta.edu

Moodle Class Website: <http://online.peralta.edu/fall2013/>

Office Hours and Contact: I am available for questions or feedback anytime by email or in person by appointment.

Course Description

This course is designed to build and develop skills of scientific communication related to the fields of biotechnology and biomanufacturing. We will learn how to analyze and prepare technical scientific articles, protocols, standard operating procedures, and lab reports. We will also develop skills in presenting data and become familiar with technology and software used for preparing data presentations.

Student Learning Outcomes for Biol 74

- Interpret, modify, and write laboratory experimental protocols.
- Find information about scientific experimental methods using computer search tools.
- Use computer software to analyze and report experimental data.
- Interpret and critique data presented in figures and tables.
- Understand, log, and write standard operating procedures .
- Convey experimental results, conclusions, and significance via written report.
- Convey experimental results, conclusions, and significance via oral presentation.
- Critique presentations and lab reports for accuracy, thoroughness, clarity, and professionalism.
- Interpret and analyze diverse scientific literature, including scientific news, industry product and trend developments, and research articles.

Required Materials

- Text: No required text for this course. You will be directed to or provided with helpful resources throughout the course.
- 3 ring binder for handouts and assignments, pen and paper
- Access to Moodle to get class announcements, print handouts, and submit assignments.

Moodle Course Website

You'll find the course web site to be essential for studying and completing assignments. The site is part of the Peralta district Moodle system and includes:

- **Content:** all course information, in-class readings and handouts
- **Assignments:** all weekly homework assignments, extra credit assignments, and Final project assignments will be posted to the course website and all assignments should be submitted to the course website unless instructed otherwise.
- **Gradebook:** Check your grades on homework assignments, in-class activities, quizzes, final project assignments online anytime.
- **Resources:** Additional information and helpful resources will be posted to the course site for you to access anytime.

To access the course site go to: <http://online.peralta.edu/fall2013/>

Logging in: Your log-in is your PASSPORT username and your password is your date of birth in the format- yyymmdd (more information about your passport username can be found here: <https://passport2.peralta.edu/psp/>).

If you are registered for the course, the BIOL74 course should appear under "My Courses" when you log in.

If you do not have convenient use of a computer with internet access, computers are available on campus at the Library and in the Technology Center (F-170) during open lab hours. More information about the Technology Center and open hours can be found here: <http://www.laney.edu/wp/technology/technology-center/open-lab-hours/>

Grading

Points	Percent	Description
150	15%	In-class assignments
300	30%	Weekly homework assignments
50	5%	Peer evaluations
150	15%	Quizzes
350	35%	Final Project
TOTAL = 1000 points		

Your final grade will be based on the percentage of the total points earned:

A = 90 – 100% of total points

B = 80 – 89.9%

C = 70 – 79.9%

D = 60 – 69.9%

F = <60%

In-class activities (15% of total points)

In almost every class meeting, except on days with quizzes and final presentations, there will be an in-class activity or assignment relevant to the topic at hand. Most of these activities and assignments will require you to work in groups and actively participate in class discussion. These assignments will vary between 10-15 points each and together will total 165 points. Therefore, if you are absent one class period you will still have the opportunity to earn the full points possible (150 points) towards your final grade for in-class assignments.

Weekly homework assignments (30% of total points)

Every week you will be given a take home assignment to complete on your own that will be due before the beginning of class the following week. Most of these assignments will be written assignments that will require you to do some independent research. These assignments will be worth 20 points each. No late work will be accepted. The due date for each homework assignment is listed in the course schedule, and you will submit your typed homework on Moodle as an electronic document. If you are absent, it is your responsibility to get the homework assignment from Moodle.

Peer evaluations (5% of total points)

Peer evaluation and feedback is a critical component for most workplaces and helps us to learn and grow from each other. For certain in-class and homework assignments you will be asked to evaluate one of your peers work. You will be provided a structured form for this evaluation and will be asked to critically evaluate another classmate's work and provide useful feedback for improvement. These evaluations will be worth 5 points each.

Quizzes (15% of total points)

There will be two quizzes given, each worth 75 points. Quizzes will consist of multiple choice, short answer, and essay questions and will be given in class. You will have half a class periods (90 minutes) for each quiz. Please refer to the course schedule for specific quiz dates. There are no make-up quizzes, so please look at the dates now and plan ahead.

Final Project (35% of total points)

You will be provided with detailed information regarding the final project for this course. In summary, you will design and conduct your own 'research project' that will culminate in a written report and oral presentation. For detailed information regarding the project, please review the "Final Project" handout on the class Moodle website in the 'Handouts' folder.

This project will be worth 350 points:

Project proposal – 20 points

Written update/draft – 20 points

Written Report – 160 points

Oral Presentation – 150 points

Extra Credit

Each extra credit assignment is worth a maximum of 10 points and you can turn in no more than 3 extra credit assignments, for a maximum total of 30 points. You are allowed to turn in only one assignment for each option. These points can be earned in several ways via three options. For options, please refer to the more detailed extra credit assignment requirements handout on the Moodle webpage.

All extra Credit assignment must be turned in by Wednesday December 4th.

Format for written assignments

All written assignments should be typed Times New Roman or Arial 12-point font and double-spaced. Written assignments should be turned in electronically on the Moodle site. For more information on formatting please review the “Formatting Instructions” handout on the Moodle site in the “Handouts” folder.

Participation and Absences

Participation in lecture means not just being physically present, but mentally and intellectually present as well. Class sessions will regularly include activities and discussions in large and small group discussions, and your voice matters. Since each week we will be doing in-class activities, participation is an extremely important part of this class. Therefore, it is important that you do not miss class, and that you come to class on time and stay for the entire class period. If you are unable to come to class, you will lose any points associated with that day’s class (*i.e.* homework, in class assignment, quiz or exam, etc.).

Classroom culture:

In this class, you should:

- Share your opinions, comments, and questions about course-related topics.
- Display respect, tolerance, and patience when interacting with your classmates & with me.
- Take responsibility for learning by staying attentive and organized.
- Check the e-mail address that you give me regularly for course announcements.
- Communicate with me (for help, to provide me with feedback, or anything else about which you would like to communicate).

In this class, you should not:

- Arrive late or leave early or during class activities/lecture.
- Talk while someone else is talking.
- Use portable electronic devices in class (phones, iPods, etc.)—this includes texting!

Statement on Plagiarism and Cheating

It is considered cheating to steal an exam, use a cheat sheet, copy test answers from other students, let another student copy your work or exam, or to plagiarize.

Plagiarism includes copy-pasting text from the internet or books without proper citation, or any other manifestation of someone else's ideas and/or words. You will receive a zero on plagiarized assignments. To learn more about what is considered plagiarism, please search the web on your own, or feel free to consult these two useful web sites: <http://science.widener.edu/svb/essay/plagiar.html>

Any print in view of your exam area or verbal exchange between students will be considered cheating. It is your responsibility to clear your area of any material other than your pencil and exam. Any student caught cheating will receive a zero on the exam and will be referred to the Dean.

Biol 74 F2013 Course Schedule (Subject to change)

Week	Date	Class Topic/Activity	Due
1	8/21	Course overview and expectations Communication in Science Science at work: Biomanufacturing & beyond <i>In class activity 1</i>	
2	8/28	The Scientific Process Lab notebooks and Lab reports <i>In class activity 2</i>	HW 1 DUE
3	9/04	Lab Reports and Protocols Peer evaluations <i>In class activity 3</i>	HW 2 DUE
4	9/11	Biomanufacturing Communications: Common documentation, SOPs, Final Reports <i>In class activity 4</i>	HW 3 DUE
5	9/18	The Structure of a Scientific Paper <i>In class activity 5</i>	HW 4 DUE
6	9/25	Scientific articles and reviews <i>In class activity 6</i>	HW 5 DUE
7	10/2	Quiz 1 Research Proposals <i>In class activity 7</i>	HW 6 DUE
8	10/9	Presenting Research I <i>In class activity 8</i>	Project Proposal DUE HW 7 DUE
9	10/16	Class 2 minute oral presentations <i>In class activity 9</i>	HW 8 DUE
10	10/23	Presenting Research II Technology Center <i>In class activity 10</i>	HW 9 DUE
11	10/30	Critical Analysis, Statistical Significance, and Validity of data <i>In class activity 11</i>	HW 10 DUE

12	11/6	Data presentation I <i>In class activity 12</i>	HW 11 DUE
13	11/13	Data Presentation II Technology Center <i>In class activity 13</i>	HW 12 DUE
14	11/20	Quiz 2 Science in the media Public understanding of science Knowing your audience <i>In class activity 14</i>	Draft of final report DUE HW 13 DUE
15	11/27	On the job market: Etiquette in professional communication Tools for the interview process <i>In class activity 15</i>	HW 14 DUE
16	12/4	Course Review Technology Center <i>In class activity 16</i>	HW 15 DUE
17	12/11	Final Oral Presentations	Final Written Report DUE