Principles of Biology I - BIOL 1107L (Spring, 2024)

Instructor Information

Instructor name: Dr. Jonghoon Kang
Instructor contact: Bailey Science Center 2217, 229-333-7140,
jkang@valdosta.edu
Instructor office hours:
9 AM – 11 AM, 3 PM – 4 PM on Monday / 9 AM – 11 AM on Wednesday or by appointment

Course Information

BIOL 1107L. Principles of Biology Laboratory I. 1 Hour.
Pre- or Co-requisite: BIOL 1107. A laboratory course to accompany BIOL 1107, with exercises dealing with the cellular nature of life.

Timetable

Section	CRN	Day	Time	Location
A	24667	M	12:00 PM - 2:50 PM	1083
B	24669	T	9:30 AM - 12:20 PM	1083
C	24670	T	2:00 PM - 4:50 PM	1083

Required materials

R. H. Goddard. Methods and Investigations in Basic Biology 7th Edition. ISBN: 978-1-5339-4342-2
Lab notebook (Any regular notebooks are fine)

Lab Conduct (Policies)

- Arrive on time. Students who miss two labs without an excuse or three labs total cannot receive a lab grade above a "D" (60%). Attendance will be recorded using the lab quiz, which will be given the first 10 minutes of the lab. So, please be on time. In the event that a student misses a lab with an excuse, s/he should email the instructor within 24 hours of the missed lab. Excused absences are usually given for medical emergencies and documentation must be provided; the professor determines whether or not an absence is "excused" or not. Students are still responsible for all lab content even if they received an excused absence.
- It is strongly advised to maintain a laboratory notebook with drawings, descriptions, data etc. of the laboratory exercises. A dedicated notebook is

required. The notebook will help you study for the quizzes. **If you miss a lab, then you should get the missing lecture notes from your classmates, so that you can be ready for the corresponding quiz in the week.**
- No eating or drinking in the lab.
- Students must take care of lab equipment. Notify the professor if something is not working properly or if something breaks during the course of the lab.
- Each student will be assigned a microscope. It is the student's responsibility to properly use the microscope. After lab the professor will check each scope to make sure that it was put away properly. Failure to do so will result in one point being subtracted from the student's final lab points. Notify the professor if your microscope is not functioning properly.
- Cell phones are not allowed to be used in lab with the exception of using them as timers or cameras to take pictures of data when necessary.
- Email: Please email me only from a VSU email account. I am unable to respond to emails from non-VSU accounts.
-Academic integrity is the responsibility of all VSU faculty and students. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and the syllabus. All students are expected to do their own work and to uphold a high standard of academic ethics. Cheating (including plagiarism) will not be tolerated. The instructor reserves the right to dismiss you from the course without credit if you are caught cheating. You will be always respectful of your instructor and your fellow students, or you will be dismissed from the class and potentially the course.
- Print out this syllabus and keep it in your lab notebook.

Lab Assignments and Evaluation Policy:
Throughout the semester lab assignments will be given. Due dates of these assignments are shown in the lab schedule table in this syllabus.
10 quizzes (10 points each, so in total 100 points) + 2 Assignments (10 points each, so 20 points in total) + Final (100 points) = 220 points.

Lab quizzes. There will be a 10-point quiz at the beginning of each lab session, so do not be late for lab! The quizzes will be based on materials from the previous lab. The number of questions in a quiz will be five. If there is an error with your quiz grade you must contact me on the week the quiz is given, as grades will become final by the following week. No calculators are allowed while taking a

quiz. **If you miss lab quizzes, there is an opportunity to make them up on the last day of semester (see the schedule). The maximum number of make-ups is three.**

Lab Assignments. There will be two assignments. It is worth 10 points. Questions regarding assignment grades must be made during the week the grade has been given to you, as grades will become final by the following week. **Late assignments won't be accepted.**

Your score (%) = Sum of your scores/2.2
Grading criteria

A ≥ 90

B ≥ 80

C ≥ 70

D ≥ 60

F < 60

Lab Notebook Format: (You can use your notebook while taking quizzes, so it is very important to maintain your notebook in a good shape)

1. Title and Date

2. Introduction

All my writings on the board or presentation before experiments.

3. Materials and Methods

Record the materials and procedure of your experiments.

4. Results

Record the results of your experiment, including every pertinent detail. Always transfer your group's results to your lab notebook. This includes recreating any tables or graphs from your lab manual in your lab notebook.

5. Discussion

Answers to the questions you asked in Introduction as well as your own interpretation of the results you obtained.

Accommodations Statement

Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodation.
https://www.valdosta.edu/student/disability/

Non-Discrimination and Title IX Statement
https://www.valdosta.edu/administration/student-affairs/title-ix/

Academic Integrity: You know that cheating is a bad thing to do. Students caught cheating will receive a grade of F for the test in question and will be reported to the Dean of Students. You are expected to follow VSU's Academic Integrity Code.

> From VSU's Academic Integrity Code (the full code is available at https://www.valdosta.edu/academics/academic-affairs/academic-honesty-policies-and-procedures.php
>
> "*Academic integrity is the responsibility of all VSU faculty and students. Faculty members should promote academic integrity by including clear instruction on the components of academic integrity and clearly defining the penalties for cheating and plagiarism in their course syllabi. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and the faculty members' syllabi. All students are expected to do their own work and to uphold a high standard of academic ethics.*"

Classroom demeanor or conduct: Every student should make the lecture a comfortable and enjoyable learning experience. Late entry to the classroom or leaving early are not desirable behaviors. Common sense should be practiced and expected.

TENTATIVE LAB SCHEDULE AND TOPICS

A	B / C	Topics	Assignments
Jan 8	Jan 9	Syllabus and General Lab Introduction	
Jan 15	*Jan 16*	*No Lab*	
Jan 22	Jan 23	Ex1: Introduction to the Use of the Scientific Method	
Jan 29	Jan 30	Ex2: Basic Light Microscopy	Quiz 1
Feb 5	Feb 6	Ex3: Observation of Living Cells with Light Microscopy	Quiz 2
Feb 12	Feb 13	Ex4: Independent Group Microscopy Projects **(A1)**	Quiz 3
Feb 19	Feb 20	Ex5: Cellular Water Relations	**A1 due**
Feb 26	Feb 27	Ex6: Basic Techniques for Biochemical Analysis	Quiz 4
Mar 4	Mar 5	Ex7: Protein Extraction and Quantification	Quiz 5
Mar 11	*Mar 12*	*Spring Break*	
Mar 18	Mar 19	Ex8: Enzymology: alpha amylase activity	Quiz 6
Mar 25	Mar 26	Ex10: Photosynthesis **(A2)**	Quiz 7
Apr 1	Apr 2	Ex11: Cell Reproduction	Quiz 8; **A2 due**
Apr 8	Apr 9	Special Topic: DNA gel Electrophoresis	Quiz 9
Apr 15	Apr 16	Ex16: Introduction to Bioinformatics	Quiz 10
Apr 22	Apr 23	Final (Cumulative)	Make-up Quizzes

January 8	First Class Day for spring 2024
January 11	Registration for spring 2024 ends (11:59pm)
January 16-19	Attendance Verification for VSU courses that begin on January 8
January 19	Attendance Verifications due at 9am
Feb 21-28	In-progress Grade Entry for full-term VSU courses
Feb 28	In-progress Grades Due at 5pm
Feb 29	Official Midterm for spring 2024
Feb 29	Students View In-progress Grades
March 7	Withdrawal Deadline for full-term VSU courses
April 1	Registration Begins for fall 2024 (by classification)
April 29	Last class day for spring 2024
May 6	Students View Final Grades in Banner after 5pm