

Principles of Biology I - BIOL 1107L (Fall, 2021) Section L (crn: 83342)

1. Course Information

- Lab location and time: Bailey Science Center 1083
- Time: 1:00 pm - 3:50 pm, Wednesday

2. Instructor Information

- Instructor name: Dr. Jonghoon Kang
- Instructor contact: BC 2217, 229-333-7140, jkang@valdosta.edu
- Instructor office hours: Tuesday and Thursday, 2:00 PM - 3:30 PM or by appointment

3. Course Description

Required materials

- CliffsNotes Math Review for Standardized Tests 3rd Edition (ISBN-13: 9780544631021)
- Lab Manual: Goddard, R.H. 2013. Methods and Investigations in Basic Biology. 6th edition (Recommended but not required)
- Lab notebook (Any regular notebooks are fine)

4. 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 20 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.

- 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 respectful of your instructor and your fellow students at all times, or you will be dismissed from the class and potentially the course.

- **Print out this syllabus and keep it in your lab notebook.**

5. Lab Assignments:

Throughout the semester lab assignments will be given. Due dates of these assignments are shown in the lab schedule table in this syllabus.

6. Assessment or Evaluation Policy

10 quizzes (100) + Research report (10) + Final (100) = 210.

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 material from the previous labs. 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.

Lab Assignments. There will be one assignment. 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. The Assignment is due at the start of class unless otherwise directed. Late assignments may be accepted but with a **deduction of scores at a rate of 1 point per day.**

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.

7. Additional Statements

Accommodations Statement

Students with documented disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871. For more information, please visit VSU's Access Office or email: access@valdosta.edu.

Title IX Statement

Valdosta State University (VSU) is committed to creating a diverse and inclusive work and learning environment free from discrimination and harassment. VSU is dedicated to creating an environment where all campus community members feel valued, respected, and included. Valdosta State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, disability, genetic information, or veteran status, in the University's programs and activities as required by applicable laws and regulations such as Title IX. The individual designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning nondiscrimination policies is the University's Interim Title IX Coordinator: Ms. Selenseia Holmes, titleix@valdosta.edu, Student Union, Suite 3106, Valdosta State University, Valdosta, Georgia 31698, 229-333-5941. To file a report (not make an inquiry) please visit https://cm.maxient.com/reportingform.php?ValdostaStateUniv&layout_id=7.

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 class room or leaving early are not desirable behaviors. Common sense should be practiced and expected.

8. TENTATIVE LAB SCHEDULE AND TOPICS

Date	Topic	Assignments
Aug 18	Course Introduction and Review of Syllabus	
Aug 25	Exercise 1: Introduction to the Use of the Scientific Method <i>Math: 8 – 12</i>	
Sep 1	Exercise 2: Basic Light Microscopy <i>Math: 13 – 17</i>	Quiz 1
Sept 8	Labor Day Week-NO LABS <i>Math: 18 – 22</i>	
Sept 15	Exercise 3: Observation of Living Cells with Light Microscopy <i>Math: 23 – 27</i>	Quiz 2
Sept 22	Exercise 4: Independent Group Microscopy Project <i>Math: 28 – 32</i>	Quiz 3
Sept 29	Exercise 5: Cellular Water Relations <i>Math: 33 – 37</i>	Quiz 4
Oct 6	Exercise 6: Protein Extraction and Quantification from Living Tissues; Midterm (Oct 8) <i>Math: 38 – 42</i>	Quiz 5 Research report due

Oct 13	Fall Break – NO LABS <i>Math: 43 – 47</i>	
Oct 20	Exercise 7: Enzymology: alpha amylase activity <i>Math: 48 – 52</i>	Quiz 6
Oct 27	Exercise 9: Photosynthesis <i>Math: 53 – 57</i>	Quiz 7
Nov 3	Exercise 10: Cell Reproduction: Mitosis, Meiosis and Cytokinesis <i>Math: 58 – 62</i>	Quiz 8
Nov 10	Handout: Crime Scene, RFLP & Gel Electrophoresis <i>Math: 63 – 69</i>	Quiz 9
Nov 17	Exercise 14: Transformation of pGLO Plasmid into Bacteria <i>Math: 6 – 9 (Arithmetic Diagnostic Test)</i>	Quiz 10
Nov 24	Thanksgiving Break- NO LABS <i>Math: 69 – 74 (Arithmetic Review Test)</i>	
Dec 1	Exercise 14: Complete Transformation Experiment	Final

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	RR	Final	Sum

Your score (%) = Sum/2.1

Grading criteria

A, if your score ≥ 90 ; B, if your score ≥ 80 ;

C, if your score ≥ 70 ; D, if your score ≥ 60

F, if your score < 60

Why Math?

Because mathematics is fundamental for all science including biology. Second reason is mathematics is an important topic in most standardized exam such as MCAT. <https://students-residents.aamc.org/prepare-mcat-exam/whats-mcat-exam>

Math without a calculator

<https://www.princetonreview.com/med-school-advice/mcat-math>

How to study math?

Self-study. You are required to study one page of the book per day (see the schedule). In the following week you will be tested for the contents.

If you have problems in studying math

Schedule a tutoring appointment with the Academic Support Center. <https://www.valdosta.edu/asc/>

When you sign up, make sure you sign up for an appointment for MATH1111.

If you need further help, see me during my office hours.

Outcome

You will be well prepared with skills in arithmetic and you will be ready to study Algebra, which I may teach in BIOL 1108L in Spring, 2022. In addition, you will be better prepared to do research with me.