

Biology 1107L: Principles of Biology I Laboratory

Department of Biology, College of Science and Mathematics, Valdosta State University
Spring 2023 Laboratory Syllabus

Instructor: Mr. Joshua I. Brown

Section: C

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Office hours: Mon/Wed 1:00 – 2:30 or by appointment

Course Description: A laboratory course designed to accompany BIOL 1107 lecture, with exercises dealing with the cellular nature of life.

Pre- or Corequisite: BIOL 1107 Unifying Principles of Biology I. Note a grade of C or higher is required in both lecture and lab.

Course Objectives: Upon completion of this course the student should be able to:

- Exhibit a broad perspective on the principles unifying various biological disciplines from evolution to molecular biology (DBEO 2 & 5);
- Understand basic biological chemistry from elements to organic compounds to macromolecules.
- Comprehend basic principles of biology at the cellular level to include structure, function, metabolism, communication, reproduction, molecular biology, and gene expression (DBEO 3 & 4);
- Perform, analyze, interpret and report laboratory experiments (DBEO 1);
- Develop and test a hypothesis using experimental microscopy and quantitative skills acquired in the laboratory (DBEO 1 & 5).

These objectives support the Department of Biology Educational Outcomes # 1-5 listed above (DBEO 1-5) and the University General Educational Outcomes # 5 as listed in the VSU Undergraduate Catalogue

Required material:

A dedicated bound lab notebook (e.g., “mead composition notebook”) must be maintained. Here you will keep a record of weekly lab activities. We will discuss how the notebook should be organized during our first lab meeting. I will be checking each lab entry for a grade throughout the semester.

Grading:

Grade component	Total points
Pre – Quizzes	60
Post – Quizzes	120
Lab notebook	60
Participation	60
Class total	300

Desired Grade	Scale
A	270 – 300
B	240 – 269
C	210 – 239
D	180 – 209
F	0 - 179

Pre/post quizzes: There are a total of 12 labs we will conducting throughout this semester. Each lab will have its own pre and post quiz. The pre-quiz will be used to prime you for that week’s lab. They will mostly consist of questions dealing with short videos you must watch beforehand. You may also have to review short PowerPoints I will post on BlazeVIEW. The post – quiz will be based on the lab completed that week.

Lab notebook: Each lab we do will be recorded in your lab notebook. Here is where you take notes and write detailed descriptions on what occurred that week. In your notebook, you will divide each lab into: Introduction, materials/methods, results, conclusion. You will need to use this information to do well on the post quizzes. You must show me your lab notebook at the end of each class to get credit for that week.

Participation: Everyone starts with full participation points at the beginning of the semester. Given that this is a physical lab, you will need to actively participate in class. If I observe, you not doing anything the entire lab then you will be deducted your participation grade for that week. This also means that if you do not attend class then you will also lose participation points.

LATE WORK WILL NOT BE ACCEPTED. Once the due date for the quizzes close, they will stay closed. I strongly recommend you do not wait until the last minute to take quizzes. If you are having technical difficulties an hour before the due date, there is not much I can do to fix the situation in the given time.

Attendance Policy: Laboratory attendance is mandatory. Students who miss 3 or more labs, with or without a documented excuse, cannot receive a lab grade above a 60% (D) for the course. Labs cannot be made up after the week they occurred. If you miss lab or know you are going to miss lab, then there is very limited opportunity to make it up by attending another instructor’s lab. You will have to get permission from me and the instructor you plan to attend to allow a makeup.

Given that this is an actual lab that requires you to physically be here to get valuable experience and data, it is imperative that you try to come every week. Missing lab will affect quizzes, lab notebooks and participation. Being absent **does not** excuse you from any work done that week. You are still responsible for any quizzes and assignments.

Lab Conduct:

- Please arrive on time. If you are more than 15 minutes, it is very likely you will miss out on crucial information
- No eating or drinking in the lab is allowed. If seen, you will be asked to throw it away.
- Dress appropriately. No open toed shoes or obstructive clothing.
- You must take care of lab equipment. Notify the instructor if something is not working properly or if something breaks during the lab.
- I recommend you do not use your cell phones during class

Communication: The best way to contact me is through VSU email (JoshuaBrown@valdosta.edu). I try to respond as soon as possible. If you do not get a response within 24 hours don't hesitate to send a POLITE reminder to me about it.

You can try to reach me through BlazeVIEW but I do not recommend it. I do not get notifications from it and am likely to miss a message for a prolonged period of time.

Please be professional and courteous..." You can catch more flies with honey than vinegar".

NO CHEATING!

You are here to be assessed on YOUR work. You are only doing yourself a disservice by cheating as you will have a harder time in upper division courses. Plagiarism is a form of cheating. You cannot copy someone else's work and pass it off as your own.

Incidents of cheating or plagiarism will result in an automatic F for the course and referral to The Office of Student Conduct for disciplinary action. For VSU's Academic Integrity Code please see <http://www.valdosta.edu/administration/student-affairs/student-conduct-office/> For VSU's Academic Honesty policies and procedure please see <http://www.valdosta.edu/academics/academic-affairs/vp-office/academic-honesty-policies-and-procedures.php>

Biology Tutoring: The Academic Support Center (ASC) at Valdosta State University is located on the second floor of the Odum Library. The ASC provides free peer tutoring in core curriculum courses, including biology. Call 333-7570 to make an appointment, or visit their website at <https://www.valdosta.edu/asc/>

Privacy Act (FERPA): The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone or over email because positive identification can't be made.

Non-Discrimination and Title IX Statement

Valdosta State University (VSU) upholds all applicable laws and policies regarding discrimination on the basis of race, color, sex (including sexual harassment and pregnancy), sexual orientation, gender identity or expression, national origin, religion, age, veteran status, political affiliation, or disability. The University prohibits specific forms of behavior that violate Title IX of the Education Amendments of 1972. Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in education programs and activities that receive federal funding. VSU considers sex discrimination in any form to be a serious offense. Title IX refers to all forms of sex discrimination committed against others, including but not limited to: sexual harassment, sexual assault, sexual misconduct, and sexual violence by other employees, students or third parties and gender inequity or unfair treatment based on an individual's sex/gender. The designated Title IX Coordinator for VSU is Mr. Darius Thomas. To view the full policy or to report an incident visit: <https://www.valdosta.edu/administration/student-affairs/title-ix/>

Accommodations Statement:

Students with disabilities who are experiencing barriers in this course may contact the Access Office (<https://www.valdosta.edu/student/disability/>) for assistance in determining and implementing reasonable accommodations. The Access Office is located in University Center Room 4136 Entrance 5. 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. To request reasonable accommodations for pregnancy and childbirth, contact Christina Kidd, Student Conduct Coordinator at chkidd@valdosta.edu. Please note, you will be required to provide documentation from an appropriately licensed medical professional indicating the requested accommodations are medically necessary.

Campus Gun Carry Statement (HB 280): If you choose to carry a concealed weapon on campus, you are responsible for knowing and following the law. Refer here for FAQ:

<https://www.valdosta.edu/administration/finance-admin/police/campuscarry/>

Tentative lab schedule

Week	Date	Topic:
1	Jan. 9 - 12	Syllabus and course introduction
2	Jan. 16-19	MLK week – NO LABS
3	Jan 23 – 26	Lab 1: The scientific method
4	Jan 30 – Feb 2	Lab 2: Basic light microscopy
5	Feb 6 - 9	Lab 3: Microscopy of living organisms
6	Feb 13 – 16	Lab 4: Cellular water relations
7	Feb 20 – Feb 23	Lab 5: Biochemical spectroscopy
8	Feb 27 – Mar 2	Lab 6: Protein Extraction and Quantification
9	Mar 6 – 9	Lab 7: Enzymology
10	Mar 13 - 16	Spring break – NO LABS
11	Mar. 20 - 23	Lab 8: Photosynthesis
12	Mar 27 - 30	Lab 9: Cell reproduction
13	April 3 - 6	Lab 10: DNA analysis
14	April 10 - 13	Lab 11: Bioinformatics
15	April 17 - 20	Lab 12: Bacterial transformation
16	April 24 - 27	Lab 12: Finish previous lab

Important Spring 2023 dates

January 9	First class day
January 12	Registration ends
January 16	MLK day – No classes
March 2	Midterm
March 9	Withdrawal deadline
March 13 – 17	Spring break
May 1	Last class day
May 2 – 5	Final exams

The syllabus is tentative and is subject to change at the discretion of the instructor!!!