

**Department of Biological Sciences
Florida International University
BSC 2010L – General Biology I Lab
Fall 2018
Syllabus**

Course Description: This lab is designed to reinforce the concepts of BSC 2010 lecture. Students will be exposed to the basic principles of biology including biochemistry, enzyme kinetics, cellular energetics, molecular biology and the characteristics of populations.

Course Goals: The course will present the fundamental principles and concepts of biology, reinforcing the concepts learned in General Biology I (BSC2010) lecture. In the laboratory, students will (1) learn and apply the fundamental concepts of biology, (2) draw conclusions from data, (3) develop prediction and hypotheses to explain observations, and (4) design experiments to test hypotheses and predictions.

Course Objectives: Upon completion of this course, the student will:

- Understand and be able to apply the scientific method
- Know the elements of and be able to construct a scientific paper
- Know how to properly use a microscope to study organisms and their cells
- Know the function of organelles and understand the structure and function of cell membranes
- Understand how enzymes catalyze reactions and how they are important to life
- Understand how cells harvest energy from chemical structures
- Understand the connection between cell division and the principles of inheritance genetics
- Know how to induce and detect successful transformation of bacteria
- Recognize and test the properties of major classes of biological molecules
- Understand and apply the basic principles of evolution and population genetics.
- Be able to perform basic laboratory skills

The contact information of the Lead Lab Instructor is listed below. The contact information for your section's lab section is listed on the lab website. The Lab website is hosted by Canvas at online.fiu.edu.

Lead Instructor: Jose Alberte

e-mail: jalberte@fiu.edu

Office: OE 296 Office Hours: by appointment only

All appointment requests must be done via e-mail

Reading Assignments: You are required to read each lab assignment before the lab period. The topic schedule details the weekly readings. The readings are from the lab manual. You may also have supplemental readings. These readings will be posted to the lab class page. These readings are essential for you to fully understand the procedures, complete the tasks, and answer the questions for each assignment. Weekly quizzes will be based on the assigned readings (both from the manual and supplements) and the application of previous lab material. Make Note: The topic schedule is a separate document from the syllabus

Required Lab Supplies: The following supplies are available at the FIU Campus Bookstore and are **MANDATORY** for admission to the lab:

General Biology I Lab Manual, 2nd Edition; McGraw-Hill Publishing
Jose Alberte, Thomas Pitzer, Kristy Calero

1. Lab coat (**Long sleeve shirts or sweaters are not acceptable**)
2. Closed-toe shoes
3. Lab goggles/glasses
4. Lab Manual

*** You will NOT be allowed in the lab unless you bring your lab manual & are wearing your lab coat and closed-toe shoes- NO EXCEPTIONS!***

Shoe apparel: You must wear closed-toe shoes in every lab. Keep in mind, this is for YOUR SAFETY in lab. You should wear shoes that cover your entire foot and avoid cloth-based shoes. **You cannot wear Crocs with holes to lab – no exceptions.**

Grading Breakdown:

A= 90-100; B= 80- 89; C= 70- 79; D= 60- 69; F= 0- 59

All grades are based on a 10 point scale. **There will NOT be a curve applied to your grade.** Make note from the beginning of the term the many forms of bonus points and take advantage of these opportunities. It is your responsibility as a student to keep track and inquire about your progress in the lab. The grades will be based on the following:

- **Quizzes: 35 %,**
- **Practical Exams (Midterm 15%, Final 15%): 30%**
- **Lab Reports (10% for each report): 20%**
- **Notebook: 10%**
- **Group Cooperation: 5%**
- **Total = 100%**

Quizzes: There will be a quiz **every week** at the beginning of each lab. There will be a quiz administered the first week of class. Half the quiz content will cover the previous lab and the other half of the quiz will include information based on that day's lab. The quiz will contain application and analysis based short responses. The lowest quiz grade will be dropped.

If you miss a lab due to an unexcused reason, you will receive a zero on your quiz. There are no excused absences, only properly documented excuses for a make-up. An appropriate reason for a make-up, for example, is a death in the family or a documented illness for the week. **YOU MUST MAKE UP THE LAB WITHIN THAT SAME WEEK TO RECEIVE CREDIT FOR THE QUIZ.** You will also receive a zero, if you arrive to the lab after the quiz has been administered and completed. If you arrive after the quiz has been administered you will not have an opportunity to take the quiz. *See Tardiness policy below for further details.* **There will be no separate make-up quizzes given.** The quiz will ONLY be administered in a lab session. Having missed a previous lab, for any reason, does not excuse you from not taking any assessment the following lab.

Practical Exams: There will be a midterm and final practical exam. The content included in these practical exams is indicated on the topic schedule. If you are late to a practical exam, you cannot make-up the questions you missed. You will continue taking the exam at the same pace as everyone else in class and you will finish at the same time as everyone else. No additional time will be given for you to make-up the questions that you missed because you were late. Plan to arrive an hour early so that you are not late. **Just like a regular lab session, practical exam make-ups are only available within the same week the exam is administered.**

Lab Reports: Lab reports will be written for the labs listed on the schedule online with an asterisk. Only lab reports written on the indicated lab exercises will be graded. Follow the lab report guidelines posted on the lab website, as well as any additional directions your instructor provides to write your lab reports. You will not earn a passing grade without following these posted guidelines. Due dates for lab reports are on the topic schedule.

YOU MUST BE PHYSICALLY PRESENT IN THE LAB TO WRITE THE LAB REPORT FOR THAT LAB. IF YOU ARE ABSENT AND DO NOT MAKE-UP THE LAB, YOU WILL RECEIVE A ZERO FOR THAT LAB REPORT. NO EXCEPTIONS!

You will have the opportunity to write a rough draft for the first report. It will be graded and then handed back for a revision. The class website contains the lab report guidelines with more detailed information on how to write and format the lab report. All lab reports must be submitted through www.turnitin.com.

Turnitin is a plagiarism detection service. If you do not turn in your report to turnitin.com you will receive a **ZERO** for the lab report. **DO NOT plagiarize!** If you plagiarize, you will receive a **ZERO** for your lab report and you will be reported to the university disciplinary committee. If you already submitted a similar paper in any other class, lab, or school, you cannot submit it again. It is considered plagiarism. Only original lab reports written this term and for this lab will be graded. Turnitin checks all previous submission of student material, all across the world and it also checks against a large database of published books and journals. You are NOT allowed to e-mail your report to any other student. This will also result in a grade of **ZERO**.

Reports will only be accepted electronically through turnitin.com. Make Note: The reports are due the week of lab indicated in the topic schedule. Reports are due the day after your registered lab section day. For example, if your lab is scheduled to meet on Tuesdays your lab report will be due on Wednesday of the week indicated for that report on the topic schedule. **The electronic copy is due by 11:59pm the day your lab report is due.** There is no excuse for turning in a lab report late. If you have been issued a make-up for the lab day in which the lab report is due, the due date for your report does not change. Due dates are posted since the beginning of the semester. These dates do not change and should not come as a surprise. It is your responsibility to plan accordingly. Turnitin.com sends you an automatic confirmation to your e-mail address. Do not “assume” that you turned in your report through turnitin.com. Make sure you have the confirmation. You must submit a file through turnitin.com. It is the responsibility of the student to submit the report properly. If you do not know the mechanics of how to submit a paper on Canvas or turnitin you need to go to the proper reference resources to figure out how to properly submit. You may not copy and paste the text into the website for submission. Microsoft Word and PDF files are acceptable formats for submission. You have one opportunity to submit the report. Only your first electronic submission will be graded. **The Late reports will be penalized 10 points per day including weekends. E-mail submissions or paper copies of the report will NOT be accepted.**

Group Cooperation & Group Effort: You will be working in groups during the semester. You will be graded on your ability to function as a group when performing the lab tasks. These labs are structured such that each member of every 4-person group has a role and a function. It is therefore important that each person perform their roles and cooperate fully with the group in order for each member of the group to learn the material and do well in the course. **Each group member will be graded individually. You must fully and actively participate within your group for the entire lab time to get full credit for this portion of your grade.** The lowest group cooperation grade will be dropped.

Notebook: You will be required to update and maintain your lab manual, containing your observations and results, as well as the answers to exercise questions. The notebook due dates are listed on the topic schedule. Your instructor will check your notebooks and give you a notebook grade for each lab. If you are absent, you will not receive notebook points for that lab. Your lowest notebook grade will be dropped. **No late notebook submissions will be accepted.**

Policies:

You will follow all policies as stated in the university handbook. Failure to do so may result in dismissal from this class and the course. If you are not familiar with these policies and/or have never read them, you are strongly encouraged to do so.

Instructor Meeting: Students are required to meet with their instructor the week following the first lab. Once you have set the appointment with your instructor be sure to know where their office hours are held and arrive on time. If you miss the appointment without prior notification you will not receive credit for the initial assessment. The meeting serves to discuss the student’s initial assessment, instructor expectations, and any concerns by either party. These meetings are mandatory, but always feel free to stop by during your instructor’s office hours any week to discuss any problems or questions you may have. Your instructor is more than willing to help students that want to do well in this lab. Please take advantage of their office hours and make appointments to see them.

Class Communications: Although e-mail is a great form of communication, if for some reason you cannot get a hold of your instructor via e-mail, you must try other means of contacting him/her. You can visit them during their office hours, call their office (if they have one) or if you cannot get a hold of them, contact the Lead Lab Instructor Jose Alberte (jalberte@fiu.edu). You should in NO way assume that an assignment is not due, for example, just because you haven't heard back from your instructor. Not getting an e-mail reply from your instructor *DOES NOT* absolve you of any aforementioned responsibilities. All due dates are posted, on the schedule, at the beginning of the semester, so there are NO excuses and NO exceptions!! Make sure you use proper e-mail etiquette when writing your messages to your lab instructors. Please use the guidelines posted on Canvas.

Disability Services: Students with disabilities, who may need accommodations for this class, are required to notify the lead lab instructor, Jose Alberte, and contact the Disability Resource Center (DRC), early in the semester so that reasonable accommodations may be implemented. We cannot make accommodations without the direct instruction of the DRC. The Disability Resource Center offers a wide variety of legally mandated services to students with documented disabilities. After reviewing your documentation, a Disability Specialist will determine appropriate academic services and accommodations, depending on your functional limitations in the academic setting. You will then be responsible for requesting accommodations, in a timely manner, following DRC policies and procedures for accessing accommodations. The same rules apply for absences and tardiness, being a DRC student does not exempt you from bringing appropriate documentation. For example, if you were at the doctor's office, you must bring in documentation confirming this was the case. **All disability related arrangements must be made under the direct supervision/approval of the Lead Lab Instructor.**

Attendance: Attendance is mandatory! You must attend the lab for which you are registered. You are expected to attend ALL labs. Attendance is checked at the beginning AND end of class. This includes the first lab, which is mandatory to attend. You cannot receive credit for any lab that you did not attend. If you are not present for the entire lab, the instructor will mark you as absent and consider it unexcused. **DO NOT** schedule doctor/dentist appointments and/or trips during class time. Appointments are NOT valid excuses to miss lab. You have the option to make-up the lab during another class period within the same week, as long as you have proper documentation. Make-up quizzes are ONLY administered during a make-up lab. The make-up quiz is NOT administered outside of a make-up lab.

If you decide to stop coming to lab, you must drop yourself from the lab. **We cannot drop you from the lab.** Any student who does not show up for two consecutive labs without contacting their instructor should not continue taking the lab. The practical experience of a lab is a necessary component of a balanced science education. Because labs cannot be made-up at any given time, missing two consecutive labs or multiple labs greatly hinders the practical education of the student and defeats the purpose of a laboratory program.

Absences: It is your responsibility to notify your instructor ASAP if you miss lab for any reason. If for some reason you cannot get a hold of your instructor via e-mail you must try other means of contacting him/her. Refer to the protocol below to receive approval for a make-up.

All documentation for an absence must be submitted within a week of the missed lab, otherwise the absence will be considered unexcused. It is far better for you and easier for us if you make arrangements BEFORE you have to miss a lab—the earlier the better. This will not excuse you from not attending. The lab must be made-up for credit.

Unexcused absence: An unexcused absence will always result in a zero for the quiz, notebook, and group cooperation for the lab missed. If the absence is during the lab meant for the lab report, you will receive a zero for the lab that day and for the lab report. No exceptions!

Make-up Policy: Excuses for a make-up include such things as **death in your immediate family** or **extreme illness**. Other examples of excused absences can be found in the student handbook. **Proof is ALWAYS required.** Examples of proof include death certificates and doctor's notes. In the case of an excused absence, you are expected to make up the lab in another section that same week.

To coordinate your make-up lab you must submit an electronic request with documentation using the link below, which can also be found on Canvas. To submit your request you must use your FIU student e-mail address. Once you submit your request, you will receive an automatic submission receipt. The request will be reviewed and either approved or denied. If the make-up is approved a form will be automatically e-mailed to the student, course administrators, the make-up lab instructor, and the original lab instructor for the student. If the request is rejected, a notice will be sent to the student indicating the request was rejected. The ENTIRE lab must be made-up.

Make-up Form Link:

<https://goo.gl/forms/DZLRUCNE68eqWmkG2>

You need to get an authorization form to attend another section. You **CANNOT** attend another lab without written permission from the course administrators. You must print out the authorization form and present it to the lab instructor to enter the lab. If you are not able to make up the lab, you will not receive notebook, quiz or participation points for that lab. Keep in mind, the lowest grade for each component previously listed is dropped. If you do not make up the quiz within the same lab week, in a lab session, you will receive a zero. **Make-up labs may be done only once during the semester! If you don't attend your registered lab you would need to attend a make-up to receive credit for the quiz, notebook, and group cooperation for that lab exercise.**

KEEP IN MIND: ONCE THE LAST LAB OF THE WEEK LAB HAS BEGUN, THERE ARE NO MORE MAKE-UPS. DO NOT WAIT UNTIL THE LAST MINUTE TO TAKE CARE OF ANY ABSENCE ISSUE. REFER TO THE TOPIC SCHEDULE FOR ANY CHANGES AS TO WHAT IS THE LAST DAY A PARTICULAR LAB EXERCISE WILL RUN. UNLESS OTHERWISE NOTED ON THE SCHEDULE THE FINAL LAB OF THE WEEK STARTS FRIDAY AT 8:30AM.

Religious Holidays: Students must notify their instructor ***at the beginning of the semester*** of an absence due to the observation of a religious holiday. The student must attend another section that does not conflict with the holiday.

Tardiness: Labs will start ON TIME each week and the quiz will follow directly thereafter. If you arrive after the quiz has been completed, you will receive a **zero** for the quiz. If you arrive after the quiz has begun you will be allowed to take the quiz, but will only have the same amount of time to take the quiz as the rest of the class has remaining to take the quiz. Missing any portion of the lab will result in the deduction of points from your participation and notebook grades. If you are late to class with a documented excuse, you should not stay in the lab if you want to make-up the entire lab, including the quiz. Please refer to the lab make-up procedures. *See the Make-up Policy for further details.*

Leaving Early: There are no excuses for leaving early. Leaving early will result in a student receiving no credit for the day. If the reason for leaving early is deemed excusable, the student **MUST** attend a make-up session in order to obtain full credit. *See the Make-up Policy for further details.*

Late Assignments: (1) Late lab report submissions will be **penalized 10 points per day**. Just because you missed class, even for a documented reason, does not mean you have permission to submit your assignment late. Due dates are posted from the start of the semester. You need to be prepared to submit assignments on time. Plan ahead and don't procrastinate. (2) Late notebook/lab manual submissions will **not be accepted**.

Cheating, including plagiarism, is unacceptable and will be reported to University Officials. See the Student Handbook regarding the FIU policies.

Extra Credit:

- (1) *Cooperative Motivator:* If each member within a given group receives at least 90% on each of their quizzes, all members of that group will receive 5 extra points, on the quiz.

(2) *Read, Write, and Cite Workshop*: The Center for Academic Success offers workshops in Writing Enhancement through application of various disciplinary writing strategies. These workshops are designed to improve your scientific writing skills. They are structured for small groups of students to facilitate in-depth application of these skills. To receive credit for these workshops you will need to attend ALL sessions AND actively participate as delineated by the Center for Academic Success. A maximum of ten points can be added to the lab report portion of the grade distribution.

Safety: Laboratory safety equipment (**goggles, lab coat, closed-toe shoes, and proper attire**) will be required for admission to the lab. You must have all of this equipment starting the second lab. If you do not have your equipment, you will not be allowed into the Lab. “Not knowing” is not an excuse. It is your responsibility as a student to find out information, especially on lab safety, before coming to lab. You will receive a **zero** for the quiz and the lab work cannot be made up. **Come prepared! No Excuses! No exceptions!**

Each lab group will be responsible for cleaning up after themselves in each lab. There will be time allotted at the end of each lab for the cleanup of glassware, lab counter tops, sinks, and all other material that is used. **Points will be deducted from those who do not keep their lab materials clean.** We have had problems with students placing trash in the drawers/cabinets of the lab tables and trash in the broken glass recycling containers (broken glass belongs in the broken glass container). We will be checking for this and points will be deducted, if material are not put back or disposed of properly as instructed. **Trash belongs in the trash, not on the floor, not in the lab table drawers, not in the sink, and not in the broken glass container!!**

No food or drinks are allowed in the lab. Do NOT leave the lab classroom with gloves on at any time for any reason.

Equipment: If you break and/or deface any laboratory equipment of value, you must pay for the cost in full. This includes any damage to the microscopes.

Electronics: Laptops, beepers and cellular phones must be **turned off** and put away during the lab. Use of the electronic device will result in a 10 point deduction from the student’s quiz per transgression.

Class Communication: Although FIU is a culturally diverse campus, the University conducts all lectures and labs in English. We will observe this practice in lab, and all conversations and work submissions must be in English. **Do not talk while your instructor is giving instructions.** You will miss important points and will disturb your fellow classmates. If you are asked more than once to remain quiet, or to refrain from disrupting the class learning environment you may be asked to leave the room and you will NOT have the opportunity to make up the lab.

You are required to know your **FIU** email account credentials at the start of term.

“Incompletes” will be issued only with proper documentation and will be evaluated on a case by case basis by the Lead Instructor.

Additional Information on Group Work:

You will be working in groups of four. Your instructor will assign duties to each lab member and notify you of those duties at the beginning of the second lab. Each group will be assigned various **tasks** that must be completed during the lab period. You must work **together** to complete one task before moving onto the next one. Your instructor will evaluate the group after each task to determine that each group member understands the information. Each person will be evaluated and will receive a group cooperation grade based on their ability to work within the group. Did the group finish the tasks? Did all members of the group work together to make sure that everyone understood the material? Were there negative comments by group members? These are the kinds of questions that will shape your evaluation. Please respect your lab partners and act professionally in the lab. You will be held responsible for your actions.

*****Syllabus Subject To Change*****