

Biology 1040 Organismal Biology Lab
Spring Semester 2021
Biology Department, College of Science and Math
Valdosta State University

Instructor: Christopher Le

Office: Science Building 2025

Office Hours: By Appointment

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Room: Science Building 1046

Midterm: March 11, 2021. This is the last day to drop this course and receive a withdrawal grade (W).

Credit Hours: 1

Course Description:

Bio 1040L Organismal Biology Lab

Co-requisite: Bio 1030. This course cannot be taken for credit toward the major in biology. A laboratory course to accompany Bio 1030 lecture, emphasizing the structure of multicellular organisms.

Course Objectives: This course is designed to accompany Bio 1030 by presenting exercises that emphasize the processes involved in the development and maintenance of multicellular organisms. The objective of this course is to provide students with a hands-on experience in general biology. Students will participate in the process of scientific inquiry by asking scientific questions, developing hypotheses, predicting outcomes of experiments, collecting and interpreting data and drawing conclusions from the results.

Learning Goal: Students will demonstrate understanding of the physical universe and the nature of science, and they will use scientific methods and/or mathematical reasoning and concepts to solve problems.

Materials: McGraw Hill Connect Online Labs. If you are taking Biol 1030 IA online with Dr. Elder (CRN 21938) then you will not need to purchase the lab material. We will use virtual labs which are included with the purchase of the online lecture from McGraw Hill. If you are not taking Biol 1030 then contact me about purchasing the website needed.

COVID 19 CHANGES: Due to COVID 19 regulations we are altering the way we teach the non-major labs. Only half of the normal number of students can be in the lab at a time. Therefore, each class will be divided into 2 groups (group A and group B). Each group will attend lab alternating weeks. The weeks that you do not have in-person labs you will have online labs to complete. All of the online labs will be through McGraw Hill Connect. You will be told whether you are in Group A or Group B. Each group has a different schedule at the end of the syllabus.

COVID Illness or Contact: If you are sick or exposed due to COVID you must first complete the COVID self-reporting form on the MyVSU site and contact the Dean of Students. They will send your instructors notification of your absence with the dates you will be absent. At that point your instructor will work with you on the labs and assignments that you missed. **THIS DOES NOT EXCUSE YOU FROM LABS OR THE MATERIAL COVERED IN THE LAB.** Your instructor will work with you individually to either make up the lab and assignments or come up with an alternative assignment. You must communicate with your instructor on these missed assignments and labs.

Attendance: Attendance in lab is mandatory. This is a face to face lab. If you decide you want to take the course completely online then you will need to drop this course and sign up for an online lab.

As per University policy; a student who misses more than 20% of the scheduled classes of a course will be subject to receiving a FAILING grade in the course. There will only be six in-person labs and 7 sets of online labs for you to attend/complete. So, **IF YOU MISS 3 LABS WHETHER THEY ARE ONLINE OR IN-PERSON YOU WILL AUTOMATICALLY FAIL THE COURSE**

If you are **10 minutes late to lab, you will be turned away from the lab.** Lab will begin on time so if you are late and are not present for instructions and safety issues you will not attend the lab.

Also, it is imperative that you attend your regularly scheduled lab. **No make-up labs will be allowed due to seating limitations.** So, set alerts in your phone or mark your in-person labs on a calendar so you don't miss your in-

person labs. You will have a week or more to complete your weekly online labs but we cannot alter the in-person labs.

Grading: Your final grade will be determined by laboratory quizzes, laboratory reports, homework assignments, daily participation grades and online labs. **Quizzes are given at the beginning of each lab. If you are late to class or miss the class, you will not be able to make up the quiz.** If you miss the class completely, you are responsible for the material covered that class period and you must be prepared for the quiz the following class period.

I will not accept assignments or a lab report from a class that you did not attend. I will not accept any late assignments either. You will receive a daily participation grade for the in-person labs. Therefore, if you are not present you will receive a zero grade for the day.

Final Grades: Final grades are based on the following cumulative point totals. **All grades will be posted on Blazeview.** This is a tentative summary of grades for the semester subject to change. See the points listed on the lab schedule.

In-person labs = 10 points each x 6 = 60 points	
Quizzes and assignments = 120 points	
Virtual labs = 5 points each x 28 = 140 points	
Total = 320 points	
A	90 - 100% 288 - 320 points
B	80 - 89.99% 256 - 287 points
C	70 - 79.99% 224 - 255 points
D	60 - 69.99% 192 - 223 points
F	below 60% below 192 points

Cheating and Plagiarism: 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. A student caught cheating on a quiz, lab report, or assignment will receive a grade of zero and may receive a failing grade (F) in the course.

Each student will be required to complete his/her own lab report or assignment for certain lab experiments. Many of the experiments will be conducted as groups; however, group lab reports or lab reports identical to others in the class are not acceptable. **If two or more students turn in identical or similar lab reports or assignments, or online labs, those students will receive a grade of zero on the assignment.**

Disruptive Behavior: The academic community is under a strong obligation to protect the campus community from disorderly, disruptive, or obstructive actions which interfere with academic pursuits of teaching, learning and other campus activities. Therefore, any disruptive behavior in the laboratory that interferes with the teaching of the laboratory exercises or disturbs other students or faculty will not be tolerated. **Any student that disrupts the class will be removed from the class and possibly dropped from the course.** This student will also forfeit any points toward his or her grade from that day and will not be able to make up the lab. Refer to the Undergraduate Catalog for more information.

**TEXTING OR USING YOUR PHONE WILL NOT BE TOLERATED DURING CLASS!
YOU WILL BE ASKED TO LEAVE THE CLASS IF THIS POLICY IS BROKEN!**

Family Educational Rights and Privacy Act of 1974: It is illegal to release personal information about an individual to others. **Grades, averages, and other information will not be released to anyone but that individual; therefore, no grades will be posted or given out over the phone or email.**

Access Statement: Students with 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 (VP) and 229-219-1348 (TTY). 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 pregnancy status, sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, national origin, 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 Title IX Coordinator: Maggie Viverette, Director of the Office of Social Equity, titleix@valosta.edu, 1208 N. Patterson St., Valdosta State University, Valdosta, Georgia 31608, 229-333-5463.

Extra Help with Coursework

The Academic Support Center (ASC) offers all VSU students free peer tutoring in core curriculum courses, including math, writing (any subject), chemistry, biology, foreign languages and more. Please bring your assignments, textbooks, and homework to tutoring sessions. Also available are free, one-hour seminars for help with study skills, time management, and a variety of other topics. Visit our office on the main campus, located in Langdale Residence Hall, or call 229-333-7570 for an appointment, or visit the website where you can make appointment for yourself (www.valdosta.edu/asc).

Bio 1040 Organismal Lab – Spring 2021 - Room BC 1046

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM					
8:30 AM					
9:00 AM					
9:30 AM					
10:00 AM			Bio 1040 Lab L		
10:30 AM			Le		
11:00 AM			10 - 11:50		
11:30 AM					
12:00 PM	Bio 1040 Lab B		Bio 1040 Lab M		
12:30 PM	Doscher		Le		
1:00 PM	12 - 1:50		12 - 1:50		
1:30 PM					
2:00 PM	Bio 1040 Lab C	Bio 1040 Lab I	Bio 1040 Lab N		
2:30 PM	Burch	Burch	Doscher		
3:00 PM	2 - 3:50	2 - 3:50	2 - 3:50		
3:30 PM					
4:00 PM			Lab meeting		
4:30 PM			Lab meeting		
5:00 PM			Lab meeting		
5:30 PM			Lab meeting		

Faculty

Office Phone #

Office #

Email

Dr. Teresa Doscher
Mr. Christian Burch
Mr. Chris Le

333-5769
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BC 1098
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Biology office

333-5759

BC 2035

GROUP A Biology 1040 Lab Schedule – Spring 2021

<u>Week 1 - Introduction, Syllabus, Safety Guidelines</u>			Points
Week 1	Jan. 11 - 13	Complete the following virtual labs listed under "Week 1 Introduction":	
		Virtual Lab Tutorial	5
		Lab Safety - Handwashing	5
		Lab Safety - Personal Safety	5
	Jan. 18 - 20	NO LABS DUE TO MLK DAY HOLIDAY	
<u>Week 2 & 3 - Biological Macromolecules</u>			
Week 2	Jan. 25 - 27	IN-PERSON LAB - Biological Macromolecules	10
Week 3	Feb. 1 - 3	Complete the following virtual labs listed under "Week 2 & 3 Biological Macromolecules":	
		Chemical Composition of Cells - Test for Sugars	5
		Chemical Composition of Cells - Test for Starch	5
		Chemical Composition of Cells - Test for Fat	5
		Chemical Composition of Cells - Test for Proteins	5
		Quiz on Biological Macromolecules (week 2 & 3 labs)	20
<u>Week 4 & 5 - Osmosis</u>			
Week 4	Feb. 8 - 10	IN-PERSON LAB - Osmosis Lab	10
	Feb. 15 - 17	NO LABS DUE TO WELLNESS DAY ON THE 16TH	
Week 5	Feb. 22 - 24	Complete the following virtual labs listed under "Week 4 & 5 Osmosis Labs":	
		Osmosis - Movement of Water Across a Selectively Permeable Membrane	5
		Osmosis - Tonicity in Elodea Cells	5
		Osmosis - Tonicity in Potato Strips	5
		Osmosis - Tonicity in Red Blood Cells	5
		Quiz on Osmosis (week 4 & 5 labs) and Osmosis Homework	20
<u>Week 6 & 7 - DNA/Genetics</u>			
Week 6	March 1 - 3	IN-PERSON LAB - DNA Isolation and Gel Electrophoresis	10
Week 7	March 8 - 10	Complete the following virtual labs listed under "Week 6 & 7 Genetics Labs":	
		Human Genetics - Genetic Inheritance	5
		Mendelian Genetics - Monohybrid Fruit Fly Cross	5
		Mendelian Genetics - Dihybrid Plant Cross	5
		Quiz on DNA/Genetics (week 6 & 7 labs)	20
	March 15 - 17	NO LABS DUE TO WELLNESS DAY ON THE 17TH	
<u>Week 8 & 9- Senses Lab</u>			
Week 8	March 22 - 24	IN-PERSON LAB - Senses Lab	10
Week 9	March 29 - 31	Complete the following virtual labs listed under "Week 8 & 9 Senses Labs":	
		Eye and Vision - Eye Dissection	5
		Eye and Vision - Visual Acuity Test	5
		Eye and Vision - Accommodation of the Lens	5
		Eye and Vision - Color Vision Test	5
		Eye and Vision - Pupillary Reflex Test	5
		Eye and Vision - Convergence Reflex Test	5
		Quiz on Senses/Eye and Vision (week 8 & 9 labs)	20
<u>Week 10 & 11 - Metabolism and Photosynthesis labs</u>			
Week 10	April 5 - 7	IN-PERSON LAB - Metabolism Lab	10
Week 11	April 12 - 14	Complete the following virtual labs listed under "Week 10 & 11 Photosynthesis Labs":	
		Photosynthesis - Carbon Dioxide Uptake	5
		Photosynthesis - Photosynthetic Pigments	5
		Photosynthesis - Determining Rate in White Light	5
		Photosynthesis - Comparing Green and Blue Light	5
		Quiz on Metabolism/Photosynthesis (week 10 & 11 labs)	20
<u>Week 12 & 13 - Cardiovascular labs</u>			
Week 12	April 19 - 21	IN-PERSON LAB - Cardiovascular Lab	10
Week 13	April 26 - 28	Complete the following virtual labs listed under "Week 12 & 13 Cardiovascular Labs":	
		Blood - Blood Typing	5
		Blood - Differential White Blood Cell Count	5
		Cardiovascular Physiology - Pulse Rate	5
		Cardiovascular Physiology - Blood Pressure	5
		Quiz on Cardiovascular System and In-class assignment on Cardiovascular system	20
			320

GROUP B Biology 1040 Lab Schedule – Spring 2021

<u>Week 1 - Introduction, Syllabus, Safety Guidelines</u>			Points
Week 1	Jan. 11 - 13	Complete the following virtual labs listed under "Week 1 Introduction":	
		Virtual Lab Tutorial	5
		Lab Safety - Handwashing	5
		Lab Safety - Personal Safety	5
	Jan. 18 - 20	NO LABS DUE TO MLK DAY HOLIDAY	
<u>Week 2 & 3 - Biological Macromolecules</u>			
Week 2	Jan. 25 - 27	Complete the following virtual labs listed under "Week 2 & 3 Biological Macromolecules":	
		Chemical Composition of Cells - Test for Sugars	5
		Chemical Composition of Cells - Test for Starch	5
		Chemical Composition of Cells - Test for Fat	5
		Chemical Composition of Cells - Test for Proteins	5
Week 3	Feb. 1 - 3	IN-PERSON LAB - Biological Macromolecules	10
		Quiz on Biological Macromolecules (week 2 & 3 labs)	20
<u>Week 4 & 5 - Osmosis</u>			
Week 4	Feb. 8 - 10	Complete the following virtual labs listed under "Week 4 & 5 Osmosis Labs":	
		Osmosis - Movement of Water Across a Selectively Permeable Membrane	5
		Osmosis - Tonicity in Elodea Cells	5
		Osmosis - Tonicity in Potato Strips	5
		Osmosis - Tonicity in Red Blood Cells	5
	Feb. 15 - 17	NO LABS DUE TO WELLNESS DAY ON THE 16TH	
Week 5	Feb. 22 - 24	IN-PERSON LAB - Osmosis Lab	10
		Quiz on Osmosis (week 4 & 5 labs) and Osmosis Homework	20
<u>Week 6 & 7 - DNA/Genetics</u>			
Week 6	March 1 - 3	Complete the following virtual labs listed under "Week 6 & 7 Genetics Labs":	
		Human Genetics - Genetic Inheritance	5
		Mendelian Genetics - Monohybrid Fruit Fly Cross	5
		Mendelian Genetics - Dihybrid Plant Cross	5
Week 7	March 8 - 10	IN-PERSON LAB - DNA Isolation and Gel Electrophoresis	10
		Quiz on DNA/Genetics (week 6 & 7 labs)	20
	March 15 - 17	NO LABS DUE TO WELLNESS DAY ON THE 17TH	
<u>Week 8 & 9- Senses lab</u>			
Week 8	March 22 - 24	Complete the following virtual labs listed under "Week 8 & 9 Senses Labs":	
		Eye and Vision - Eye Dissection	5
		Eye and Vision - Visual Acuity Test	5
		Eye and Vision - Accommodation of the Lens	5
		Eye and Vision - Color Vision Test	5
		Eye and Vision - Pupillary Reflex Test	5
		Eye and Vision - Convergence Reflex Test	5
Week 9	March 29 - 31	IN-PERSON LAB - Senses Lab	10
		Quiz on Senses/Eye and Vision (week 8 & 9 labs)	20
<u>Week 10 & 11 - Metabolism and Photosynthesis labs</u>			
Week 10	April 5 - 7	Complete the following virtual labs listed under "Week 10 & 11 Photosynthesis Labs":	
		Photosynthesis - Carbon Dioxide Uptake	5
		Photosynthesis - Photosynthetic Pigments	5
		Photosynthesis - Determining Rate in White Light	5
		Photosynthesis - Comparing Green and Blue Light	5
Week 11	April 12 - 14	IN-PERSON LAB - Metabolism Lab	10
		Quiz on Metabolism/Photosynthesis (week 10 & 11 labs)	20
<u>Week 12 & 13 - Cardiovascular labs</u>			
Week 12	April 19 - 21	Complete the following virtual labs listed under "Week 12 & 13 Cardiovascular Labs":	
		Blood - Blood Typing	5
		Blood - Differential White Blood Cell Count	5
		Cardiovascular Physiology - Pulse Rate	5
		Cardiovascular Physiology - Blood Pressure	5
Week 13	April 26 - 28	IN-PERSON LAB - Cardiovascular Lab	10
		Quiz on Cardiovascular System and In-class assignment on Cardiovascular system	20
			320