Biology 1040 Organismal Biology Lab Fall Semester 2020 Biology Department, College of Arts and Sciences Valdosta State University

Instructor: Mr. Christian B. Burch
Office: Science Building 2082
Office Hours: Wednesday 12:00-1:00pm, or by appointment
Phone: Office 219-3215, Biology Dept. Main Office 333-5759
E-mail: <u>cbburch@valdosta.edu</u>
Room: Science Building 1046
Midterm: October 15, 2020. This is the last day to drop this course and receive a withdrawal grade (W).
Credit Hours: 1

Course Description:

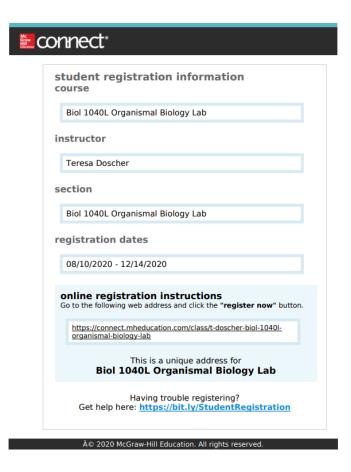
Bio 1040L Organismal Biology Lab

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.

<u>Course Objectives</u>: 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.

<u>Materials</u>: McGraw Hill Connect Online Labs. This can be purchased directly through the company (less expensive) following the directions below or an access card can be purchased through the bookstore.



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.

<u>Attendance</u>: Attendance in lab is mandatory. As per University policy; a student who misses more than 20% of the scheduled classes of a course will be subject to receiving <u>a FAILING</u> grade in the course. There will only be <u>six in-</u><u>person labs and 7 sets of online labs</u> for you to attend/complete. So, <u>if you miss 3 of them (online or in-person) you automatically fail the course</u>.

If you are <u>10 minutes late to lab</u>, 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.

<u>Grading:</u> 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. <u>If you are late to class or miss</u> 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.

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				
А	90 - 100%	288 - 320 points		
В	80 - 89.99%	256 - 287 points		
С	70 - 79.99%	224 - 255 points		
D	60 - 69.99%	192 - 223 points		
F	below 60%	below 192 points		

<u>Cheating and Plagiarism</u>: 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, 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.**

<u>Access Statement:</u> 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.

<u>**Title IX Statement:**</u> 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 - Fall 2020 - 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 A	Bio 1040 Lab G	Bio 1040 Lab L		
10:30 AM	Doscher	Castellano	Burch		
11:00 AM	10 - 11:50	10 - 11:50	10 - 11:50		
11:30 AM					
12:00 PM			Bio 1040 Lab M		
12:30 PM			Le		
1:00 PM			12 - 1:50		
1:30 PM					
2:00 PM		Bio 1040 Lab I			
2:30 PM		Le			
3:00 PM		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 #	<u>Email</u>	
Dr. Teresa Doscher		333-5769	BC 1098	thdosche@valdosta.edu	
Mr. Christian	Mr. Christian Burch		BC 2082	cbburch@valdosta.edu	
Mr. Damion	Castellano	333-5219	BC 2025	dacastellano@valdosta.edu	
Mr. Chris Le		333-5219	BC 2025	chle@valdosta.edu	
Biology office		333-5759	BC 2035		

GROUP A Biology 1040 Lab Schedule – Fall 2020

Week 1 - Introd	uction, Syllabus, Safety Guidelines			
August 17 - 21	1. Follow directions for downloading Connect Virtual Labs			
	2. Watch the lecture titled Biol 1040 Introduction, syllabus, and safety guidelines on Connect			
	3. Complete the following virtual labs listed under "Week 1 Introduction":			
	Virtual Lab Tutorial			
	Lab Safety - Handwashing			
	Lab Safety - Personal Safety			
Week 2 & 3 - B	iological Macromolecules			
August 24 - 28	IN-PERSON LAB - Biological Macromolecules			
Aug. 31 - Sept 4	Complete the following virtual labs listed under "Week 2 & 3 Biological Macromolecules":			
	Chemical Composition of Cells - Test for Sugars			
	Chemical Composition of Cells - Test for Starch			
	Chemical Composition of Cells - Test for Fat			
	Chemical Composition of Cells - Test for Proteins			
NO LABS THE	WEEK OF SEPT. 7 - 11 DUE TO LABOR DAY HOLIDAY			
Week 4 & 5 - Os	smosis			
Sept. 14 - 18	IN-PERSON LAB - Osmosis Lab			
Sept. 21 - 25	Complete the following virtual labs listed under "Week 4 & 5 Osmois Labs":			
	Osmosis - Movement of Water Across a Selectively Permeable Membrane			
	Osmosis - Tonicity in Elodea Cells			
	Osmosis - Tonicity in Potato Strips			
	Osmosis - Tonicity in Red Blood Cells			
Week 6 & 7 - D				
Sept. 28 - Oct. 2	IN-PERSON LAB - DNA Isolation and Gel Electrophoresis			
Oct. 5 - 9	Complete the following virtual labs listed under "Week 6 & 7 Genetics Labs":			
	Human Genetics - Genetic Inheritance			
	Mendelian Genetics - Monohybrid Fruit Fly Cross			
	Mendelian Genetics - Dihybrid Plant Cross			
Week 8 & 9- Se	nses lab			
Oct. 12 - 16	IN-PERSON LAB - Senses Lab			
Oct. 19 - 23	Complete the following virtual labs listed under "Week 8 & 9 Senses Labs":			
	Eye and Vision - Eye Dissection			
	Eye and Vision - Visual Acuity Test			
	Eye and Vision - Accommodation of the Lens			
	Eye and Vision - Color Vision Test			
	Eye and Vision - Pupillary Reflex Test			
	Eye and Vision - Convergence Reflex Test			
Week 10 & 11 -	Metabolism and Photosynthesis labs			
Oct. 26 - 30	IN-PERSON LAB - Metabolism Lab			
Nov. 2 - 6	Complete the following virtual labs listed under "Week 10 & 11 Photosynthesis Labs":			
NOV. 2 - 0	Photosynthesis - Carbon Dioxide Uptake			
	Photosynthesis - Photosynthetic Pigments			
	Photosynthesis - Determining Rate in White Light			
	Photosynthesis - Comparing Green and Blue Light			
Week 12 & 13	· Cardiovascular labs			
Nov. 9 - 13	IN-PERSON LAB - Cardiovascular Lab			
Nov. 16 - 20	Complete the following virtual labs listed under "Week 12 & 13 Cardiovascular Labs":			
	Blood - Blood Typing			
	Blood - Differential White Blood Cell Count			
	Cardiovascular Physiology - Pulse Rate			
	Cardiovascular Physiology - Blood Pressure			

GROUP B Biology 1040 Lab Schedule – Fall 2020

Week 1 - Introduc	ction, Sy	llabus, Safety Guidelines	
August 17 - 21	1. Follow directions for downloading Connect Virtual Labs		
	2. Watch the lecture titled Biol 1040 Introduction, syllabus, and safety guidelines on Connect		
	3. Complete the following virtual labs listed under "Week 1 Introduction":		
		Virtual Lab Tutorial	
		Lab Safety - Handwashing	
		Lab Safety - Personal Safety	
Week 2 & 3 - Bio	logical N	<u>lacromolecules</u>	
August 24 - 28	Complete	the following virtual labs listed under "Week 2 & 3 Biological Macromolecules":	
		Chemical Composition of Cells - Test for Sugars	
		Chemical Composition of Cells - Test for Starch	
		Chemical Composition of Cells - Test for Fat	
		Chemical Composition of Cells - Test for Proteins	
Aug. 31 - Sept 4	IN-PERSC	ON LAB - Biological Macromolecules	
NO LABS THE W	EEK OF	SEPT. 7 - 11 DUE TO LABOR DAY HOLIDAY	
Week 4 &5 - Osn	nosis		
Sept. 14 - 18	Complete	the following virtual labs listed under "Week 4 & 5 Osmois Labs":	
		Osmosis - Movement of Water Across a Selectively Permeable Membrane	
		Osmosis - Tonicity in Elodea Cells	
		Osmosis - Tonicity in Potato Strips	
		Osmosis - Tonicity in Red Blood Cells	
Sept. 21 - 25	IN-PERSC	N LAB - Osmosis Lab	
Week 6 & 7 - DN	A/Geneti	ĊS	
Sept. 28 - Oct. 2		the following virtual labs listed under "Week 6 & 7 Genetics Labs":	
		Human Genetics - Genetic Inheritance	
		Mendelian Genetics - Monohybrid Fruit Fly Cross	
		Mendelian Genetics - Dihybrid Plant Cross	
Oct. 5 - 9	IN-PERSC	N LAB - DNA Isolation and Gel Electrophoresis	
Week 8 & 9- Sens		·	
Oct. 12 - 16	Complete	the following virtual labs listed under "Week 8 & 9 Senses Labs":	
	•	Eye and Vision - Eye Dissection	
		Eye and Vision - Visual Acuity Test	
		Eye and Vision - Accommodation of the Lens	
		Eye and Vision - Color Vision Test	
		Eye and Vision - Pupillary Reflex Test	
		Eye and Vision - Convergence Reflex Test	
Oct. 19 - 23	IN-PERSC	N LAB - Senses Lab	
Week 10 & 11 - M	letabolis	m and Photosynthesis labs	
Oct. 26 - 30	Complete the following virtual labs listed under "Week 10 & 11 Photosynthesis Labs":		
		Photosynthesis - Carbon Dioxide Uptake	
		Photosynthesis - Photosynthetic Pigments	
		Photosynthesis - Determining Rate in White Light	
		Photosynthesis - Comparing Green and Blue Light	
Nov. 2 - 6	IN-PERSC	DN LAB - Metabolism Lab	
Week 12 & 13 - C	Cardiova	scular labs	
Nov. 9 - 13		the following virtual labs listed under "Week 12 & 13 Cardiovascular Labs":	
		Blood - Blood Typing	
		Blood - Differential White Blood Cell Count	
		Cardiovascular Physiology - Pulse Rate	
		Cardiovascular Physiology - Blood Pressure	
Nov. 16 - 20	IN-PERSON LAB - Cardiovascular Lab		