

Biology 1040 Organismal Biology Lab
Spring Semester 2024
Biology Department, College of Arts and Sciences
Valdosta State University

Instructor: Daniel Kwawuvi

Office: Science Building 2082

Office Hours: Mondays 2 – 3:00pm, Tuesdays 12:00 – 2:00 pm or by appointment

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Midterm: February 29, 2024. This is the last day to drop this course and receive a withdrawal grade (W).

Credit Hours: 1

Room: Science Building 1046

Section: C Tuesday 10:00 a.m. – 11:50 a.m. Face to face course.

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.

Technology, Mathematics & Sciences (STEM)

For non-science/non-nursing majors - 11 hours

- Any two lab sciences courses from the following (8 hours): ASTR 1010K, ASTR 1020K, BIOL 1010/1020L, **BIOL 1030/1040L**, BIOL 1951H, BIOL 1952H, CHEM 1010, CHEM 1151K, CHEM 1152K, CHEM 1211/1211L, CHEM 1212/1212L, GEOG 1112K, GEOG 1113K, GEOL 1121K, GEOL 1122K, PHYS 1111K, PHYS 1112K, PHYS 2211K, PHYS 2212K
- Any one course from the following: ASTR 1000, BIOL 1050, BIOL 1080, DATA 1501, ENGR 1010, GEOG 1105, GEOG 1110, GEOG 1125, GEOL 1110, MATH 1112, MATH 1261, MATH 1401, MATH 2261, MATH 2262, PHSC 1100/1100H

BIOL 1020L Biodiversity Lab

This is a Core IMPACTS course that is part of the Technology, Mathematics & Sciences area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question:

- How do I ask scientific questions or use data, mathematics, or technology to understand the universe?

Completion of this course should enable students to meet the following Learning Outcome:

- Students will use the scientific method and laboratory procedures or mathematical and computational methods to analyze data, solve problems, and explain natural phenomena.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Inquiry and Analysis
- Problem-Solving
- Teamwork

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.

Lab Manual (MANDATORY): Biology 1040L Organismal Biology Lab, **2nd Edition** by Teresa H. Doscher. It can be purchased at the VSU Bookstore. It is a loose leaf, 3 holes punched manual so you will need to put it in a small 3 ring binder along with some extra loose-leaf paper for taking notes.

Attendance: Attendance in lab is mandatory. **If you do not attend your regular lab section, you must arrange to make-up the lab before the end of the week. This must be in the week the lab is scheduled. 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. (3 missed labs) If you are 10 minutes late to lab, you will be turned away from the lab. It will be your responsibility to contact me after class to arrange your attendance in another lab.**

Lab Make-up Policy: The privilege of making up a lab is not guaranteed. A lab exercise **MAY ONLY BE MADE UP DURING THE WEEK IT IS SCHEDULED.** Students with lab scheduled late in the week must be especially cautious since the number of subsequent labs for the week may be few. Prior to attending another lab, **the student is responsible for obtaining written permission from BOTH his/her instructor and the other lab instructor. It is possible that the other instructor's lab is full and you will not be able to attend that lab.** If this procedure is not followed, the student will be turned away from the other lab. The student should remind the other lab instructor to give a note to his/her instructor verifying the student's attendance. The instructor will determine validity of excuses. **ONLY ONE (1) MAKE UP WILL BE ALLOWED PER SEMESTER.**

Grading: Your final grade will be determined by laboratory quizzes, laboratory reports, homework assignments and daily participation grades. You will be told at the end of each lab what you will be responsible for the next lab period; whether it be a quiz or homework to turn in. **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.**

MAKE UP QUIZZES ARE NOT GIVEN SO DON'T ASK.

The lowest quiz or assignment grade will be dropped when calculating the student's final grade. 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. 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:

90 – 100% = A 80 – 89.99% = B 70– 79.99% = C 60 – 69.99% = D Below 60% = F

All grades will be posted on Blazeview so check your grades on a weekly basis to make sure you are doing well in the course.

Grading Scale	
Points from labs attended: 13 labs x 5 points	65
Points from lab assignments or quizzes: 10 points each	110
Total points available	175
157 - 175 points	A
140 - 156 points	B
123 - 139 points	C
105 - 122 points	D
Below 105 points or miss 3 or more labs	F

Cheating and Plagiarism: 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 this syllabus. All students are expected to do their own work and to uphold a high standard of academic ethics. Any violations of this policy may result in the academic penalties outlined in the syllabus and may also be referred to Student Affairs for further disciplinary action. 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, quiz 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.**

VSU's **Academic Student Conduct Code** states that "no student shall engage in plagiarism, which is presenting the words or ideas of another person as if they were the student's own." Content generated by an Artificial Intelligence third-party service or site (AI-generated content) without proper citation is another form of plagiarism. If you are unsure about whether something may be plagiarism or another form of academic dishonesty, please reach out to me as soon as possible.

Biology 1040 Lab Schedule – Spring 2024

*This is a tentative schedule subject to change at the instructor's discretion.

Week	Date	Lab Exercise	Points
1	Jan. 8 - 10	Syllabi / Laboratory Safety Guidelines / Laboratory Expectations It is MANDATORY that you attend lab or you may be dropped from the course	5
2	Jan. 15 -17	MLK Holiday on Monday. NO LABS THIS WEEK	
3	Jan. 22 - 24	Exercise 1: Biological Macromolecules: pages 1 - 6	5
4	Jan. 29 - 31	Exercise 1: Biological Macromolecules: Quiz or assignment due Exercise 2: Osmosis and Diffusion: pages 7 - 18	10 5
5	Feb. 5 - 7	Exercise 2: Osmosis and Diffusion: Quiz or assignment due Exercise 3: Photosynthesis: pages 19 - 22	10 5
6	Feb. 12 - 14	Exercise 3: Photosynthesis: Quiz or assignment due Exercise 4: Plant Physiology (begin experiment): pages 23 - 28	10 5
7	Feb. 19 - 21	Exercise 4: Plant Physiology: Quiz or assignment due Exercise 4: Plant Physiology (record data): pages 23 - 28 Exercise 5: DNA Isolation and Gel Electrophoresis, Part 1: pages 29 - 31	10 5
8	Feb. 26 - 28	Exercise 5: DNA Isolation and Gel Electrophoresis, Part 1: Quiz or assignment due Exercise 5: DNA Isolation and Gel Electrophoresis, Part 2: pages 32 - 33 Exercise 4: Plant Physiology (record data): pages 23 - 28	10 5
9	March 4 - 6	Exercise 5: DNA Isolation and Gel Electrophoresis, Part 2: Quiz or assignment due Exercise 4: Plant Physiology (Finish experiment): pages 23 - 28	10 5
10	March 11 - 15	SPRING BREAK - No labs this week	
11	March 18 - 20	Exercise 6: Our Special Senses: pages 35 - 40	5
12	March 25 - 27	Exercise 6: Our Special Senses: Quiz or assignment due Exercise 7 - Metabolism and Fermentation: pages 41 - 46	10 5
13	April 1 - 3	Exercise 7 - Metabolism and Fermentation: Quiz or assignment due Exercise 9: Circulatory System, Part 1: pages 51 - 54	10 5
14	April 8 - 10	Exercise 9: Circulatory System, Part 1: Quiz or assignment due Exercise 9: Circulatory System, Part 2: pages 55 - 56	10 5
15	April 15 - 18	Exercise 9: Circulatory System, Part 2: Quiz or assignment due Exercise 9: Circulatory System, Part 3: pages 57 - 60 Exercise 9: Circulatory System, Part 3: Quiz or assignment due	10 5 10
16	April 22 - 25	Make-up lab if need be	
		Total points	175

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. **All grades will be posted on Blazeview.**

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 Ms. Selenseia Holmes. 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 Ms. Myia Miller, Title IX Compliance Officer, at maburden@valdosta.edu. Please note, you will be required to provide documentation from an appropriately licensed medical professional indicating the requested accommodations are medically necessary.

VSU Counseling Center: As a student, you may experience a range of challenges that can interfere with learning, such as strained or violent relationships, death and loss, increased anxiety, substance use, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. VSU services are available and treatment does work. You can learn more about confidential mental health services available on campus at <https://www.valdosta.edu/blazer-wellness/mental-health.php>

Extra Help with Coursework: The Academic Support Center (ASC) provides **unlimited, in-person, free peer tutoring** in core courses such as math, English/writing, sciences, social sciences, and languages. We also offer **8 hours of free online tutoring via Tutor.com** (8 hours per student, available 24/7). Click the Free Tutoring link in any BlazeVIEW course to make appointments. Please drop by our space in Odum Library, 2nd floor, or call 229-333-7570, email asc@valdosta.edu, or visit the website www.valdosta.edu/asc for more information.

Student Opinion of Instruction Survey: At the end of the term, all students will be expected to complete an online Student Opinion of Instruction survey (SOI) that will be available through SmartEvals. Students will receive an email notification through their VSU email address when the SOI is available (generally at least one week before the end of the term). SOI responses are anonymous to instructors/administrators, and they will be able to access results only after they have submitted final grades. Before final grade submission, instructors will not be able to see any responses, but they can see the percentage of students who have or have not completed their SOIs. While instructors will not be able to see student names, an automated system will send a reminder email to those who have yet to complete their SOIs. Complete information about the SOIs, including how to access the survey, is available on the **SOI Procedures webpage** (<https://www.valdosta.edu/academics/academic-affairs/sois/>).

**Bio 1040 Organismal Lab
Spring 2024
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 C	Bio 1040 Lab D		
10:30 AM	Doscher	Kwawuvi	Ashraf		
11:00 AM	10 - 11:50	10 - 11:50	10 - 11:50		
11:30 AM					
12:00 PM	Bio 1040 Lab B		Bio 1040 Lab E		
12:30 PM	Baidoo		Doscher		
1:00 PM	12 - 1:50		12 - 1:50		
1:30 PM					
2:00 PM			Bio 1040 Lab F		
2:30 PM			Doscher		
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

Mr. Ali Ashraf
Dr. Teresa Doscher
Ms. Maame Baidoo
Mr. Daniel Kwawuvi

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