

Biology 1040 Organismal Biology Lab
Fall Semester 2017
Biology Department, College of Arts and Sciences
Valdosta State University

Instructor: Dr. Teresa H. Doscher

Office: Science Building 1098

Office Hours: Monday 2:00 – 3:00 pm or by appointment

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Room: Science Building 1046

Midterm: October 12, 2017. 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: The lab manual and text are mandatory.

Lab Manual: Biology 1040L Organismal Biology Lab by Teresa H. Doscher

- It can be purchased at the VSU Bookstore. It is a loose leaf, 3 hole 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.

This class will also use the following text. The text is available free online in a variety of formats and a print version or mobile app are available to purchase.

Textbook: Concepts of Biology from OpenStax College, ISBN 1-938168-11-9,
<https://openstaxcollege.org/textbooks/concepts-of-biology>

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.** (

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.

Strategies Used to Support Learning : The Student Success Center: The Student Success Center (SSC) provides free peer tutoring in core courses, the top four of which are math, writing, Spanish, and biology/chemistry. It also offers Regents' Test Preparation, time management, and study skills workshops as well as provides free professional academic advising and on-campus job information in one location: Langdale Residence Hall above the Tech shop. Help is available to all VSU students. Call 333-7570 to make an appointment, or visit the website: www.valdosta.edu/ssc.

Biology 1040 Lab Schedule – Fall 2017

| Week | Date | Lab Exercise | Pages |
|------|------------------|---|--------------------|
| 1 | Aug. 21 - 24 | Syllabi / Laboratory Safety Guidelines / Laboratory Expectations Exercise 3: Photosynthesis | 17 - 20 |
| 2 | Aug. 28 - 31 | Exercise 1: Biological Macromolecules | 1 - 6 |
| 3 | Sept. 4 - 8 | Labor Day Week - No labs this week | |
| 4 | Sept. 11 - 14 | Exercise 4: Plant Physiology and Nutrition (begin experiments) | 21 - 26 |
| 5 | Sept. 18 - 21 | Exercise 5: Deoxyribonucleic Acid Isolation and Gel Electrophoresis Exercise 4: Plant Physiology and Nutrition (record data) | 27 - 30 21 - 26 |
| 6 | Sept. 25 - 28 | Exercise 5: Deoxyribonucleic Acid Isolation and Gel Electrophoresis continued Exercise 4: Plant Physiology and Nutrition (record data) | 27 - 30 21 - 26 |
| 7 | Oct. 2 - 5 | Exercise 4: Plant Physiology and Nutrition (finish experiments) | 21 - 26 |
| 8 | Oct. 9 – 13 | Fall Break - No labs this week | |
| 9 | Oct. 16 - 19 | Exercise 2: Osmosis and Diffusion | 7 - 16 |
| 10 | Oct. 23 – 26 | Exercise 6: Senses | 31 - 36 |
| 11 | Oct. 30 - Nov. 2 | Exercise 7 - Metabolism and Fermentation | 37 - 42 |
| 12 | Nov. 6 - 9 | Exercise 8: Microscopy | 43 - 46 |
| 13 | Nov. 13 - 16 | Exercise 10: Circulatory System | 55 - 59 |
| 14 | Nov. 20 - 24 | Thanksgiving Week - No labs this week | |
| 15 | Nov. 27 - 30 | Exercise 10: Circulatory System continued | 59 - 63 |

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