

**Biology 1040 Organismal Biology Lab**  
**Spring Semester 2011**  
**Biology Department, College of Arts and Sciences**  
**Valdosta State University**

**Instructor:** Arjun Adhikari

**Office:** Science Building 2082

**Office Hours:** 2:30 – 3:30 pm Tuesday

**Phone:** Office 333-5769, Biology Dept. Main Office 333-5759

**E-mail:** [aadhikari@valdosta.edu](mailto:aadhikari@valdosta.edu)

**Room:** Science Building 1085

**Midterm:** March 3, 2011. 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.

Educational outcomes associated with this course include #3 and 4 as specified by the VSU Department of Biology and #4, 5 and 7 of the general outcomes specified by Valdosta State University.

**Materials:** Biol 1040L Lab Manual, 8/e – “Organismal Biology” authored by VSU Department of Biology Faculty.

**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

**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, 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.

**TEXTING OR USING YOUR PHONE WILL NOT BE TOLERATED DURING CLASS! YOU WILL BE ASKED TO LEAVE THE CLASS AND YOU WILL LOSE YOUR GRADES 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.**

**Students with Disabilities:** Students requesting classroom accommodations or modifications due to a documented disability must contact the Access Office for Students with Disabilities located in the Farber Hall. The phone numbers are 245-2498 (V/VP) and 219-1348 (TTY).

**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](http://www.valdosta.edu/ssc).

### Biology 1040 Lab Schedule – Spring 2011

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

Week	Date	Lab Exercise	Pages
1	Jan 10 – 13	Syllabi / Laboratory Safety Guidelines <i>Web: Lab Safety</i>	
2	Jan 17 - 20	<b>Martin Luther King Holiday - No Labs this Week</b>	
3	Jan 24 – 27	Exercise 3: Carbon Compounds	19 - 25
4	Jan 31 - Feb 3	Exercise 5: Osmosis and Diffusion <i>Web: Isotonic Solutions</i> <i>Web: Hypertonic Solutions</i> <i>Web: Hypotonic Solutions</i>	33 - 39
5	Feb 7 – 10	Exercise 9: Photosynthesis <i>Web: Photosynthesis set up</i>	69 - 77
6	Feb 14 - 17	Exercise 7: Plant Physiology - Hormonal Effects (begin experiment) Exercise 8: Plant Nutrition (begin experiment) <i>Web: Plant Hormone set up</i> <i>Web: Plant Nutrition set up</i>	57 - 59 61 - 63
7	Feb 21 – 24	Exercise 4: DNA Isolation, Restriction Enzyme Digestion and Gel Electrophoresis Exercise 7 & 8: Plant Physiology and Nutrition - (record data)	27 - 30 57 - 68
8	Feb 28 – March 3	Exercise 4: DNA Gel Electrophoresis (continued) Exercise 7 & 8: Plant Physiology and Nutrition - (record data) <i>Web: Gel Electrophoresis set up</i> <i>Web: Gel Electrophoresis</i>	31 - 32 57 - 68
9	March 7 - 10	Exercise 7 & 8: Plant Physiology and Nutrition - (finish and discuss experiment)	57 - 68
10	March 14 – 18	<b>Spring Break - No Labs this Week</b>	
11	March 21 - 24	Exercise 10: Human Physiology - The Senses <i>Web: Eye Structure</i>	79 - 90
12	March 28 – 31	Exercise 11: Metabolism Exercise 12 & 13: Record calories and energy expenditure for the next period <i>Web: Anaerobic Fermentation set up</i>	91 - 95 97 - 98
13	April 4 - 7	Exercise 12: Energy Budget Exercise 13: Body Composition <i>Web: Energy Budget and Body Composition</i> <i>Web: How to Measure Body Fat</i>	97 - 104 105 - 110
14	April 11 – 14	Exercise 6: Forensic Microscopy <i>Web: Parts of Microscope</i> <i>Web: How to Use a Microscope</i>	41 - 55
15	April 18 – 21	Exercise 14: Circulation <i>Web: Anatomy of Heart</i> <i>Web: Cardiac Cycle</i>	111 - 117
16	April 25 - 28	Exercise 14: Circulation <i>Web: Circulation Blood Pressure</i>	117 - 124

**Bio 1040 Organismal Lab – Spring 2011  
Room BC 1085**

	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
8:00 AM		Bio 1040 Lab F	SGCEP		Lab Meeting Lab Meeting Lab Meeting Lab Meeting
8:30 AM		Adhikari			
9:00 AM	Lab Meeting	8 - 9:50	8 - 9:50		
9:30 AM	Lab Meeting				
10:00 AM	Bio 1040 Lab A	Bio 1040 Lab G	Bio 1040 Lab L	Bio 1040 Lab Q	
10:30 AM	Doscher	Adhikari	Doscher	Bernhardt	
11:00 AM	10 - 11:50	10 - 11:50	10 - 11:50	10 - 11:50	
11:30 AM					
12:00 PM	Bio 1040 Lab B	Bio 1040 Lab H	Bio 1040 Lab M	Bio 1040 Lab M	
12:30 PM	Wright	Adhikari	Doscher	Bernhardt	
1:00 PM	12 - 1:50	12 - 1:50	12 - 1:50	12 - 1:50	
1:30 PM					
2:00 PM	Bio 1040 Lab C	Bio 1040 Lab I	Bio 1040 Lab I	Bio 1040 Lab I	
2:30 PM	Gopinath	Gopinath	Wright	Bernhardt	
3:00 PM	2 - 3:50	2 - 3:50	2 - 3:50	2 - 3:50	
3:30 PM					
4:00 PM	SGCEP	Bio 1040 Lab J	Bio 1040 Lab O		
4:30 PM		Gopinath	Wright		
5:00 PM	4 - 5:50	4 - 5:50	4 - 5:50		
5:30 PM					

**Faculty**

**Office Phone #**

**Office #**

**Email**

Mr. Arjun Adhikari	333-5759	BC 2082	aadhikari@valdosta.edu
Ms. Lynda Bernhardt	333-5759	BC 2025	lbernhardt@valdosta.edu
Dr. Teresa Doscher	333-5769	BC 1098	thdosche@valdosta.edu
Mr. Adarsh Gopinath	333-5759	BC 2025	agopinath@valdosta.edu
Mr. Charles Wright	333-5759	BC 2025	cwwright@valdosta.edu

Biology office	333-5759	BC 2035	
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	<b>8-9:50</b>	<b>10-11:50</b>	<b>12-1</b>	<b>1-2</b>	<b>2-3</b>	<b>3-4</b>	<b>4-5</b>	<b>5-9:30</b>
<b>Monday</b>				<b>BIOL 6010SEM</b>				<b>CHEM 4310</b>
<b>Tuesday</b>	<b>1040 F T.L.</b>	<b>1040 G T.L.</b>	<b>1040 H T.L.</b>					
<b>Wednesday</b>				<b>BIOL 6010 SEM</b>				<b>CHEM 4310</b>
<b>Thursday</b>							<b>BIOL 7900 4-6:50</b>	
<b>Friday</b>	<b>WEEKLY MEETING</b>							

If you cannot reach a faculty member, contact the main biology office and leave a message.