WED. 6:45-10PM WEST LOS ANGELES COLLEGE BIO3B INTRODUCTION TO BIOLOGY FALL 2013
SEC. # 3404 RM MSA 309 DR. FILERMAN OFFICE HRS. 6:15-6:45 MSB 211 EMAIL filermba@wlac.edu
TEXT: *BIOLOGY 3B LAB MANUAL BY PROFESSOR STEVEN FINK*
REQUIREMENTS:
1. **ATTENDANCE**: Roll will be taken. THERE IS A STRONG CORRELATION BETWEEN POOR ATTENDANCE AND POOR GRADES. **You are responsible for information, exam announcements, date changes, etc. presented in class, whether or not you are present.**
. ROLL WILL BE TAKEN; MUST TAKE FINAL (SEE attached FOR SCHOOL POLICIES); ALL EXAMS ARE RETURNED TO THE STUDENT IN PERSON. YOU WILL BE ASKED TO INITIAL RECEIPT OF YOUR EXAM
2. **GRADING POLICY**: 88-100% A; 77-87% B; 62-76% C; 50-61% D. EACH QUIZ IS 100 PTS. THERE ARE 4 QUIZZES. THERE IS 1 MIDTERM (250 PTS.) AND 1 FINAL (450 PTS.) 25 TO 50 PTS. CAN BE EARNED FOR CONSISTENT QUALITY PARTICIPATION SUCH AS ASKING QUESTIONS, DOING LABS AND CONTRIBUTING TO DISCUSSIONS. THE TOTAL POINTS FOR DETERMINING THE COURSE GRADE IS 1000.

PURPOSE: The first 7 labs cover scale and measurement, chemical and physical principles which unite all life, cell theory and reproduction. The next 7 labs emphasize the diversity of living organisms and their anatomy and physiology. Students will perform laboratory skills of dissection,,microscopy, measurement and chemical analysis and practice logical data analysis of experimental results through class discussion, drawing, lab reports and short written explanations to document their observations. Scientific literacy will be addressed through the scientific method, experimental design, medical and environmental issues.	**INSTRUCTIONAL METHODS**: Each class will begin with an opening 10-30 min. presentation. You are expected to take notes. This material will appear on exams. The majority of the time is spent doing hands-on activities or experiments as prescribed by PROF. Fink's Lab Manual. **ASSESSMENT:** Proctored quizzes, midterm and final; discussion, written lab report and analysis of an environmental or medical case study.
SUPPLIES: #2 PENCIL; #882 SCANTRONS; 884-E **INTERPERSONAL SKILLS**: COLLABORATION **PERSONAL SKILLS:** ORGANIZATION AND COMMUNICATION	CELL PHONES/BEEPERS MUST BE OFF. NO FOOD OR BEVERAGES IN THE ROOM. THERE IS A 20 MINUTE BREAk AT 8:20.**THIS CLASS IS NEVER DISMISSED BEFORE 10 PM- THIS IS A WEST LA COLLEGE RULE**

LAB TOPIC SEMESTER SCHEDULE IS ORGANIZED BY THE BIOLOGY 3B COORDINATOR

LAB #			LAB TOPIC	LAB MANUAL	LAB #	DATE	LABTOPIC	LAB MANUAL
1.	8/28		LAB ORIENTATION	ENROLLMENT INTRODUCTION	9.	10/23	**MIDTERM INTRODUCTION TO** CLASSIFICATION OF ORGANISMS	
2.	9/4		MEASUREMENT IN BIOLOGY	A				
3.	9/11		THE MICROSCOPE & ITS USES	B	10.	10/30	VIRUSES, KINGDOMS MONERA & PROTISTA	G; H I; J
4.	9/18 QUIZ		THE CELL	D	11.	11/6	KINGDOMS PROTISTA, FUNGI & PLANTS	J; K; L
5.	9/25		CELL DIVISION	F	12.	11/13 QUIZ	VEG. ORGANS & REPROD. IN ANGIOSPERMS, DICHOTOMOUS KEY	M; N MM
6	10/2 QUIZ		IDENTIFICATION OF ORGANIC MOLECULES	C	13.	11/20 QUIZ	INVERTEBRATE ANIMALS	O P
7.	10/9		INTRODUCTION TO GRAPHING, DIFFUSION, OSMOSIS	X. E	14.	11/27	VERTEBRATE ANIMALS HISTOLOGY	R S T
8	10/16		ENZYMES	CC	15.	12/4	FETAL PIG ANATOMY (gloves required)	U
					16.	**12/11**	**FINAL EXAM** **CUMULATIVE but with emphasis on the parts that were not on the midterm**	

BERNICE FILERMAN BIOLOGY 3B SECTION 3404	
BIOLOGY 3B INSTITUTIONAL, COURSE AND PROGRAM STUDENT LEARNING OUTCOMES	
INSTITUTIONAL SLOS	**ASSESSMENT**
●Critical Thinking: Analyze problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences. . **●Quantitative Reasoning: Identify, analyze, and solve problems that are quantitative in nature.** **●Technical Competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.**	Laboratory exercise reports showing observations and measurements made, the analysis of observations and data, and the conclusions drawn. Collection of group data so that an understanding of the importance of being able to repeat experiments and the ability to assess experimental error and statistical significance. For example: 1. Using freshly prepared stained smear of human cheek cells estimate the average diameter of these epithelial cells. 2. Predict the effect of increasing temperature on the activity of the potato enzyme catalase, write an hypothesis statement based on this prediction, test the hypothesis, and conclude whether or not the hypothesis is valid. 3. Using microscope and measurement tools such as pipets, balances and graduated cylinders
STUDENT LEARNING OUTCOMES	
Students will demonstrate an understanding of: •How to skillfully operate a light microsocope. •How to skillfully use the metric system for basic measurements. •The application of the scientific method in comprehending biological problems. • The importance of a controlled experiment. • How to write a scientific report. •The distinctions between osmosis and diffusion. • The basic features used to distinguish members of the Kingdoms Monera, Protista, Plantae, and Animalia and Fungi • The major anatomical structures of the mouth, abdominal cavity, neck, thoracic region, and reproductive system of a typical mammal	•Laboratory activities and exercise reports requiring •COLLECTION OF LABORATORY DATA •ACCURATE INTERPRETATION OF DATA •Laboratory reports that include a hypothesis, data presentation, data analysis, description of the procedures used to test the hypothesis , description of the experimental set-up, control set-up and a conclusion. •Examinations on concepts and knowledge using multiple choice questions and practical questions
PROGRAM SLOS	
•Explain how scientists investigate causes of natural biological phenomena. •Utilize biological information to make informed decisions about environmental issues •Utlize biological information to make informed decisions about personal issues	Laboratory exercise reports and/or analysis of case studies showing observations and measurements made, the analysis of observations and data, and the conclusions drawn.