

CEDAR CREST COLLEGE
BIO 112, Concepts in Human Biology & Health Issues
Laboratory Syllabus, Spring 2009

Professor's Name: _____
Office: _____
Telephone: _____
Email: _____
Availability: _____

BIO 112 Laboratories: M 1-4 (Section 01), 4-7 (Section 02), 7-10 (Section 81)
T 8-11 (Section 03)

- I. Course Description:** This laboratory component of BIO 112 complements and reinforces the organization of the human body and health issues covered in lecture. Through an experiential and experimental approach, you will explore the human body, discover practical application of health topics and assess your own personal health values.
- II. Course Objectives:**
Upon completion of the laboratory exercises, students will be able to:
- ◆ Demonstrate and appreciate the organization and complexity of the human body from cells to systems and understand that the fundamental unit of life is the cell.
 - ◆ Use the microscope to relate the cellular level of organization to the organ and system level.
 - ◆ Hypothesize and predict physiological changes.
 - ◆ Relate vital health functions and measurements to organ systems and clinical tests.
 - ◆ Investigate some of the major clinical tests and analyze their results.
 - ◆ Utilize their knowledge, appreciation and analyses of the human body to investigate, discuss and present a biomedical ethical dilemma.
- III. Learning Outcomes and Assessment:**
- ◆ Students will demonstrate the application of the scientific method by forming hypotheses and making predictions about physiological processes.
Assessment: Laboratory experiments and reports, lab practical exams.
 - ◆ Students will demonstrate critical thinking and scientific reasoning skills utilizing qualitative and quantitative observations of the human body.
Assessment: Microscopy, laboratory experiments, sensory tests, clinical tests, lab practical exams.
 - ◆ Students will analyze and interpret empirical data about human physiology.
Assessment: Subjective physiological tasks, team/class discussion, laboratory reports.
 - ◆ Students will demonstrate an understanding of the body systems using research, specimens and models.
Assessment: Team exploration and presentation of information.
 - ◆ Students will develop the ability to communicate clearly and effectively.
Assessment: Laboratory reports and oral presentations
 - ◆ Students will apply their knowledge of the human body in the investigation of a biomedical ethical issue.
Assessment: Oral presentation.

IV. Required Text:

Kayhart, Marion and Dolores Yaschur Sproule, (2009). *Contemporary Biology, The Human Organism*. 9th Ed. DOLMAR BIO.

V. Policies:

Attendance: Attendance during your regularly scheduled lab is **mandatory**. Any laboratory absence (*excluding test days*) must meet 2 prerequisites for any accommodation: (1) contact your professor with an email or telephone message BEFORE the end of the laboratory period (2) verification from the Dean of Students Office. This will constitute a documented absence. Extended illnesses or absences must be reported through the Dean's office. Failure to comply with #'s 1 and 2 above will result in a **ZERO** for that lab day. All zeroes will be averaged into your final laboratory report grade. In the event of a documented absence, you are still responsible for any missed lab material. Your instructor will discuss with you the strategies necessary to complete the missed work.

However, a documented absence (verified through the Dean of Student's Office) **during a lab test** will result in an *incomplete grade* for the course providing your overall average is a C- or higher for 75% of the course. The lab test will be completed within the time period in accordance with the college catalog and at the discretionary time of your professor or the laboratory coordinator, Mrs. Malitsch. However, an undocumented absence during a lab test will result in a ZERO for that test.

Tardiness will be penalized at the discretion of the laboratory professor. Do not report for another section's lab class or lab practical test unannounced. An automatic penalty (10% for a regular lab class, ZERO on a test day) will be earned. If you arrive late for a test, you will forfeit that time for completion of the test.

Laboratory Work and Assignments:

All of the laboratory exercises allow for teamwork, some will even require teams of student to problem solve. Therefore, everyone expects each member of the team to be prepared, follow instructions, participate in the activities with enthusiasm and share accurate results. Failure to participate as a team member will result in a zero for the uncooperative team member.

Laboratory reports are due at the end of class or unless otherwise directed by your professor, *stapled and in order*. Lab reports handed in late (after class) will be penalized 10% per day. All lab reports will be returned by your professor. These lab reports should be studied for the lab practical tests.

Laboratory Tests:

There will be three non-cumulative laboratory tests consisting of *traditional, objective questions* and a *practical section* where lab skills and observational knowledge and critical thinking will be evaluated. There is no laboratory final exam. **Lab Test Study Guides** will be handed out prior to each test and your professor will review the information and format of the practical test. Follow the lab schedule for the 3 test dates. *Test Etiquette* applies which means that only your answers, and not comments or unnecessary drawings, may be written on the tests.

Grading: The laboratory component represents 1/3 of your final course grade.
Calculation of your lab grade is as follows:
60% of the average of 3 tests and Exercise 11
40% of the lab report average

Cedar Crest College: The professors within the Department of Biological Sciences support the campus-wide policies as described in the *Student Handbook*.

We fully support the Cedar Crest College *Honor Code, Academic Standards of Integrity and the Classroom Protocol Code* as stated in the *Student Handbook*. When necessary, violations should be brought to the attention of the instructor. Cheating will result in a zero for the test/assignment. We must respect the rights of others in this learning environment. There will be zero tolerance for disruptive, disrespectful or out of control behavior in lab which jeopardizes the learning environment, safety issues and violates basic human courtesy towards your professor and/or fellow students. Security will be notified in the event such behavior occurs. Depending upon the infractions regarding classroom protocol, violations may also result in future removal from class and be formally addressed by the appropriate individuals: Dr. Amy Faivre (Acting Chair), Dr. Carol Pulham (Provost), Christine Nowik (Director of Academic Services), Dr. Denise O'Neill (Acting Dean of Students) and the Honor and Judicial Board. *Each student should read the codes and abide by them throughout the course*

We fully support the College's policy on plagiarism as described in the *Student Handbook*. Based on the severity of the offense, students may be required to redo an assignment or receive a zero for the assignment. Cases will be reported to the Provost as necessary.

Students with documented disabilities who may need academic accommodations should discuss these needs with their professors during the first 2 weeks of class. Students who wish to request accommodations should contact the advising center.

VI. General Procedures:

- All students must have CCC email for any course communication. Check your emails often!
- Be prompt for lab; tardiness will be penalized.
- Place your backpacks under the table; hang jackets in the hallway.
- Food and beverages (including anything bottled) are not allowed in lab.
- Due to the hazards in lab and abiding by the classroom protocol code establishing a learning environment for all registered students, children are not permitted to be in the lab.
- Cell phones, digital cameras and any other electronic devices are not permitted in lab. If you have an impending situation and must have your cell phone available, please notify your professor in advance.
- Return materials to the designated areas; report all breakage to your professor.
- Use bleach spray to clean the lab tables after each exercise.
- **Participate with strong teamwork.**
- Push the stools under the tables when leaving.
- Whatever you do not understand, ASK.
- For your studying pleasure, the SC Building Hours are:
Sun. – Fri. 7AM – 10PM; Sat. 7 AM – 6PM

VII. Lab Schedule:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January 19 Ex. 1: Cells (9-19)	January 20 Ex. 1: Cells (9-19)	January 21	January 22	January 23	January 24
January 26 Finish Ex. 1: Tissues (20-28) Begin Ex. 2 : More About Cells (33-top of 37)	January 27 Finish Ex. 1:Tissues (20-28) Begin Ex. 2 : More About Cells (33-top of 37)	January 28	January 29	January 30	January 31
February 2 Finish Ex. 2: Mitosis (37-41)	February 3 Finish Ex. 2: Mitosis (37-41)	February 4	February 5	February 6	February 7
February 9 Ex. 3: Bodyworks	February 10 Ex. 3: Bodyworks	February 11	February 12	February 13	February 14
February 16 TEST #1 and Ex. 4: Sense Organs (65-top of 66, 74-78)	February 17 TEST #1 and Ex. 4: Sense Organs 65-top of 66, 74-78)	February 18	February 19	February 20	February 21
February 23 Finish Ex. 4 (66-73)	February 24 Finish Ex. 4 (66-73)	February 25	February 26	February 27	February 28
March 2 Ex. 5: Reproduction	March 3 Ex. 5: Reproduction	March 4	March 5	March 6	March 7
March 9 Spring Break	March 10 Spring Break	March 11 Spring Break	March 12 Spring Break	March 13 Spring Break	March 14 Spring Break
March 16 Ex. 6: Genetics (115-128 top)	March 17 Ex. 6: Genetics (115-128 top)	March 18	March 19	March 20	March 21
March 23 Finish Ex. 6: Act 3 on 128	March 24 Finish Ex. 6: Act 3 on 128	March 25	March 26	March 27	March 28

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 30 TEST #2 and Ex. 7: Vital Signs	March 31 TEST #2 and Ex. 7: Vital Signs	April 1	April 2	April 3	April 4
April 6 Ex. 8: Nutrition	April 7 Ex. 8: Nutrition	April 8	April 9	April 10	April 11
April 13	April 14 Ex. 10: Doctor's Office Visit	April 15	April 16	April 17	April 18
April 20 Ex. 10: Doctor's Office Visit	April 21 TEST # 3	April 22	April 23	April 24	April 25
April 27 TEST # 3	April 28 Ex. 11: Biomedical Ethics	April 29	April 30	May 1	May 2
May 4 Ex. 11: Biomedical Ethics	May 5 NO LAB Classes End				

Follow this lab schedule. Notice the TEST DATES.

The dates listed above show a Monday through Tuesday weekly cycle. This lab cycle will continue throughout the semester until April 14th through April 20th where Lab Exercise 10 spans two weeks due to the Easter break. The lab cycle will then continue as a Tuesday through Monday cycle until the end of the semester.