Syllabus: General Biology Lab II The School of Arts & Sciences St. Thomas Aquinas College

<u>COURSE DESCRIPTION</u>: This course is the lab component of Bio 173 and is a corequisite for that course. General Biology II (Bio 174) introduces students to basic techniques and safety practices in the laboratory. Bio 174 consists of specific experiments, dissections and demonstrations and will stress the importance of the scientific method by allowing students to design and implement an independent research project.

<u>COURSE OBJECTIVES</u>: Upon successful completion of the course students will be able to:

- Demonstrate proficiency in summarizing and paraphrasing simple scientific topics as they relate to life.
- Demonstrate proficient application of the steps of the scientific method.
- Learn how to analyze data and generate scientific conclusions.
- Perform accurate metric measurements.
- Use a compound microscope and a dissecting microscope.
- Identify and diagram anatomical structures in biological specimens.
- Learn how to write a detailed and coherent lab report.
- Design and execute an independent research project.

MATERIALS:

- Handouts will be distributed before the lab session meets. Please keep class handouts and course material in a binder. You will be expected to read all assigned materials!
- Safety goggles and lab coats are required at all times. These can be purchased at the bookstore.
- A calculator would be helpful for some labs.

<u>GRADING</u>:

Letter Grade	GPA Equivalent	Numerical Equivalent
Α	4	95 - 100
А-	3.7	90 - 94
B+	3.3	87- 89
В	3	83 - 86
В-	2.7	80 - 82
C+	2.3	77 - 79
С	2	73-76
C-	1.7	70 - 72
D	1	65 - 69
F	0	Failure
INC	0	Incomplete

• Will follow the grade schedule listed in the STAC catalog

• Points values for course activities:

0	Lab Reports	50pts
0	Assignments	60pts
0	Pre-Labs	100pts
0	Quizzes	100pts
0	Independent Project Presentation	50pts
0	Independent Project Lab Report	50pts
0	Lab Preparation & Technique*	<u>20pts</u>
		430pts

*Lab preparation will consist of having all materials necessary for that day's lab (lab coat, safety glasses, and pre-lab assignments.) *You will not be permitted in lab if you are not prepared with these materials.* Lab technique will be based on complying with all safety measures as well as instructions specific for that day's lab.

• LATE REPORTS/ASSIGNMENTS WILL NOT BE GRADED!

All students must follow all of the safety rules for the laboratory. Failure to do so will result in the student being dismissed from the lab.

Attendance/Make-up Policy

• If you are ill or have had a recent death in your immediate family that required you to miss lab, you will be required to document your absence. If you know ahead of time that you will miss a lab, please email *before the start of the lab period*. If you are unable to document your reason for absence, you will not be able to make-up the lab and therefore, a grade of zero will be given for all missed work that is not made up in class. Attendance will be recorded at the beginning of each class. If you miss a lab due to an acceptable excused absence, then an alternate assignment may be given in place of a lab report. Failure to contact the instructor will result in a zero grade for the lab. Only one makeup lab will be allowed during the semester.

ARRIVE TO LAB ON TIME! The beginning of each lab will include a brief description of the exercise, details on the procedures that will be used and important safety measures to be taken during the lab. Also, any quizzes given in the lab will take place at the beginning of the period. Failure to arrive on time will mean missing critical information; thus you will not be able to perform the lab for that week.

Remember that you need to be in lab to perform and complete the assignments or lab report for that week! DOORS WILL BE LOCKED 10 MINUTES AFTER THE START OF LAB. THEREFORE, IF YOU ARE LOCKED OUT OF LAB YOU WILL NOT BE ABLE TO PERFORM THE LAB AND A GRADE OF ZERO WILL BE GIVEN FOR THAT LAB!

Academic Integrity

Academic integrity, a commitment to honest, fairness, respect and responsibility, is the foundation of the learning process. All members of the St. Thomas Aquinas College community are held to the highest standards of academic honesty. While we recognize the participatory nature of education, we take academic integrity very seriously, and the College policy on academic dishonesty details consequences that can include dismissal from the College. That policy can be found in both the Student Handbook and the College Catalog.

As a student in this class, you must demonstrate your commitment to academic integrity by submitting work which originates in your own imagination, analytical faculties, or your own knowledge, which you have done yourself, and which represents your best efforts. When appropriate your work should be supplemented and supported by other sources; however, you must always insure that these sources are properly cited using the recommended documentation system.

SPECIFIC TO THIS CALSS: IF YOU ARE CAUGHT CHEATING ON A QUIZ OR PLAGARIZING FROM YOUR PARTNER'S WORK, PEER REVIEWED SCIENTIFIC

JOURNAL ARTICLES OR ANY WEBSITE, YOU WILL AUTOMATICALLY FAIL THE CLASS! NO EXCEPTIONS!

This includes copying directly from another source even if cited. Information should always be *paraphrased*, cited in text and on work cited page in APA format. This information should be used to help support your own research and statements.

College Policy on Electronic Devices in the Classroom

Students are not to use any electronic device at any time without the expressed consent of the professor. This policy covers cell phones, laptop computers, or any other device the use of which constitutes a distraction to the professor or to the other students in the class, as determined by the professor. Students with documented disabilities that require the use of a laptop in class may use them after informing their professor.

When a professor designates a time during which laptop computers may be used, they are only to be used at the discretion of the faculty member and in accordance with the mission of the college; visiting sites which the professor deems to be inappropriate to the needs of the class is forbidden.

Professors have the latitude to develop specific and reasonable policies to deal with violations of these general policies as they see fit. For more extreme cases of classroom disruption, see the College's Discipline Student Policy.

Students with Special Needs

Students needing accommodations for a documented disability should notify the nstructor at the beginning of the semester.

Tentative Course Schedule

DATES	TOPIC	ASSIGNMENT
Week 1	Lab Safety, The Virus Game (Scientific Method) & Lab Reports	Assignment Due Week 2
Week 2	DNA Isolation from Strawberry	Pre-lab 1 Due Quiz #1
Week 3	Evolution 1-Guppy Lab	Pre-lab 2 Due Assignment Due Week 4 Quiz #2
Week 4	Independent Project Design & Evolution 2-Hardy-Weinberg Equilibrium	Pre-lab 3 Due Lab Report Due Week 5 Quiz #3
Week 5	Animal Form	Pre-lab 4 Due Assignment Due Week 6 Quiz #4
Week 6	Animal Tissues	Pre-lab 5 Due Assignment Due Week 7 Quiz #5
Week 7	Effect of Temperature on Respiration	Pre-lab 6 Due Lab Report Due Week 9 Quiz #6
Week 8	NO CLASSES: SPRING RECESS	-
Week 9	Independent Project Set-up & Dissection of Earthworm	Pre-lab 7 Due
Week 10	Dissection of Crayfish & Perch	Pre-lab 8 Due Quiz #7
Week 11	Dissection of Frog	Pre-lab 9 Due Quiz #8
Week 12	Dissection of Fetal Pig	Pre-lab 10 Due Quiz #9
Week 13	Project Wrap Up/Dissection	Pre-lab 11 Due Quiz #10
Week 14	Independent Project Presentations and Final Lab Report	-
Week 15	Make-up	