

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

**COURSE DESCRIPTION:**

This course is the lab component of Bio 171 and is a corequisite for that course. General Biology I (Bio 173) introduces students to basic techniques and safety practices in the laboratory. Bio 173 consists of specific experiments and demonstrations and will stress the importance of the scientific method by allowing students to design and implement an independent research project.

**COURSE OBJECTIVES:**

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.
- Master the art of writing concise and coherent lab reports.
- 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!
- A laboratory notebook is required. The laboratory notebook is a permanent, documented, and primary record of laboratory observations. Therefore, your notebook will be a bound journal with pages that should never be torn out.
- 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.

**GRADING:**

- Will follow the grade schedule listed in the STAC catalog

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

- Point values for course activities:
  - Exams 100pts
  - Assignments 80pts
  - Article Review 20pts
  - Independent Project Presentation 50pts
  - Independent Project Lab Report 50pts
  - Preparation, Lab Technique\* 20pts**320pts**

\*Lab preparation will consist of having all materials necessary for that day's lab (lab coat, safety glasses, lab notebook, and assignments.) 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 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. Failure to arrive on time will mean missing critical information; thus you will not be able to perform the lab for that week. All assignments will be collected at the beginning of the period.

**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 CLASS: IF YOU ARE EVER CAUGHT CHEATING ON AN ASSIGNMENT OR PLAGARIZING FROM YOUR PARTNER'S WORK, PEER REVIEWED SCIENTIFIC JOURNAL ARTICLES OR ANY WEBSITE, YOU WILL AUTOMATICALLY FAIL THE CLASS!**

## **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 instructor at the beginning of the semester.

### Tentative Course Schedule

<b>DATES</b>	<b>TOPIC</b>	<b>ASSIGNMENT</b>
<b>Week 1</b>	Course Introduction, Lab Safety, The Scientific Method	
<b>Week 2</b>	Intro to Independent Projects, Metric Measurements/Significant Figures	<b>Lab Safety Agreement &amp; Scientific Method Assignment Due</b>
<b>Week 3</b>	Microscopy	<b>Metric/Sig Fig Assignment Due</b>
<b>Week 4</b>	Osmosis & Diffusion	<b>Microscopy Assignment Due</b>
<b>Week 5</b>	Cell Division	<b>Osmosis &amp; Diffusion Assignment Due</b>
<b>Week 6</b>	Exam I & Plant Pigments	
<b>Week 7</b>	Photosynthesis & Cellular Respiration	<b>Cell Division Assignment Due</b>
<b>Week 8</b>	How to Find Peer Reviewed Articles, Lab Report Writing Workshop & Excel Overview	
<b>Week 9</b>	Enzymes	<b>Photosynthesis &amp; Cellular Respiration Assignment Due</b>
<b>Week 10</b>	Membranes & Spectrophotometry	<b>Enzyme Assignment Due</b>
<b>Week 11</b>	Examining Plant Structures & Functions	<b>Membrane &amp; Spec Assignment Due</b>
<b>Week 12</b>	<b>NO LAB: THANKSGIVING HOLIDAY</b>	
<b>Week 13</b>	Exam II & Finalize Independent Projects	<b>Article Review Due</b>
<b>Week 14</b>	<b>Independent Project Presentations/Lab Report</b>	<b>Presentations/Lab Report Due</b>
<b>Week 15</b>	Lab Clean Up and Make-up	