

John F. Kennedy High School

Molecular Biology

SCHOLARSHIP

I. CLASS MATERIALS

The following items are to be brought to class everyday.

- Textbook
- Pens (black / blue) and Pencils
- Erasers
- Calculator
- 6" Metric Ruler
- Highlighters
- Computer Storage Media – USB Flash (Portable) Drive
- Lined Binder Paper
- Stylus (optional) – for drawings, sketches and notes on mobile technology devices.
- Head Phones (optional) – for use in the **computer lab** when we are engaged in research and there is a need to view a biology web site animation that has sound.
- Loose-Leaf Binder for keeping notes, handouts, labs, returned quizzes and homework. Some evaluations will require that you have notes from the class lectures and discussions; a neat, well-organized notebook will prove invaluable.

Textbook: BSCS Biology A
Molecular Approach 9th
Edition



II. ASSIGNMENTS

- Assignments will be done neatly (word-processed / in pen or pencil) and turned in on time. All assignments will be graded and assigned points.
- Homework will be assigned as necessary.

III. GRADING SCALE

- 90 – 100% = A
- 80 - 89% = B
- 70 - 79% = C
- 60 - 69% = D
- BELOW 60% = F
- A test, quiz, lab, or assignment missed due to an excused absence must be made up no later than a week after the test or assignment. The biology lab is opened from 7:00 am – 8:05 am for make-up work. See Ms. St. John to make other arrangements.

IV. GRADING

- The following items will determine your scholarship grade:
 - (A) Laboratory Work
 - (B) Tests
 - (C) Assignments / Homework
 - (D) Quizzes
- Points earned during the grading period will be tabulated and letter grades will be assigned according to the grading scale above.
- The quarter grade is one half of the semester grade.

LABORATORY REPORT

You are **required** to submit a **written laboratory report** at the conclusion of each investigation. The report will be written in a standard form as follows.

1. Title
2. Investigation Number
3. Define Purpose / Problem
4. Hypothesis: predict what you think will happen at the conclusion of the investigation based on proper use and interpretation of the background information that you have been provided or researched.
5. Materials and Equipment
6. Results: **data** obtained from the procedure, often in the form of **tables** and **graphs**.
7. Pencil Sketches
8. Discussion: a section that demonstrates the relationship between the data and the purpose of the work.
9. Conclusion

CITIZENSHIP

Two grades are used for indicating classroom citizenship – satisfactory and unsatisfactory. In order to earn a satisfactory grade, the following classroom etiquette must be observed:

1. Be in your seat when the tardy bell rings.
2. Be ready to begin class when the bell rings.
3. **Self control** is essential in a good learning environment.
4. **Talking** and other undisciplined behaviors have no business in our classroom.
5. **Permission is required** before you leave your seat or the room.
6. School tardy policies will be observed.
7. Neatness is expected in all class work.
8. Wasting time is detrimental to both your scholarship and citizenship grade.
9. **Food, drinks, gum, and grooming will not be permitted** in the classroom.
10. **Respect** for the instructor and your classmates, their property and school property is expected.
11. Remain seated until dismissed.
12. **Sunglasses / hats / headwear** will not be worn in the classroom.
13. The school **dress code** will be observed.
14. **Electronic devices** are off-limits in the classroom unless the equipment or applications are part of required laboratory / research projects and you have been given permission by the instructor to use your personal devices.

SAFETY AND LAB RULES

Since this course is laboratory based, safety is essential. All infractions of safety rules will result in exclusion from subsequent lab experiments.

1. Never perform any experiment without permission from your instructor. Never work with unauthorized material.
2. Familiarize yourself with the investigation – especially safety issues – before starting the laboratory experiment. Know the potential hazards of the equipment and materials required. Before you come to class, read over the exercise that is to be done that day so that you understand what is to be done. The lab session will begin with a short discussion to brief you on the procedures and the availability of materials. Ask questions when you do not understand the instructions or the principles involved.
3. Keep your work area neat and uncluttered. Bring only books and other materials that are needed to conduct the experiment. Stay at your assigned work area as much as possible.
4. Never touch chemicals. Even common substances should be considered dangerous, since they can be easily contaminated in the laboratory.

5. Report any accidents, incidents, or hazards – no matter how trivial – to the instructor immediately.
6. Clean your work area at the conclusion of the experiment as your instructor directs. Dispose of chemicals and wash used glassware and instruments. Make sure all water, gas jets, burners, and electrical appliances are turned off. Return all laboratory equipment and supplies to their proper places.

Read the *Safety Contract* (Separate Page). Fill in your name in the first blank. Then fill in the date and sign it.

Technology Integration

I encourage the use of technological devices such as the Apple iPad, iPod touch, and the iPhone for project based assignments. You will be permitted to use the following applications for specific classroom tasks involving **laboratory** and **research** tasks. The mobile technology devices will be used to engage you during lab investigations so that you are able to easily collect and gather data, scale and create graphs, analyze findings, examine detailed and enhanced micrographs, and share your work electronically.

- **LabQuest Notes** – lab notes and experimental data
- **Pages / MS Word** – lab notes, organize experimental data
- **Numbers / Excel** – lab notes, organize experimental data (pre-lab, data charts and tables, graphs)
- **iBooks** – Interactive e-Biology Textbooks, watch animations, view and rotate 3D images, create highlights and notes, examine study cards consisting of vocabulary terms, definitions and store PDF files on the bookshelf
- **Autodesk Graphic** – lab projects, designs, drawings and illustrations with labeled structures and descriptions
- **Camera** – photograph experimental apparatus and test results
- **Keynote / Power Point** – presentations, post-lab findings (frame slides)
- **Logger Pro** – data collection, real-time graphing and analytical tools

USB Digital Microscopes

iPad / iPod Touch / iPhone / iMac

Android Smartphones / MacBook Air / ProScope Camera

LabQuest / Sensors and Probes / Go Wireless

Data Share / Graphical Analysis / Go Direct Data Logging