



Course Name	Instructor	Instructor E-mail & Availability
Biology	Mr. Patrick Van Der Kwast	pvanderkwast@aps.k12.co.us pvanderkwast@aurorak12.org
Course Website	Class Meeting Times & Location:	Prerequisites
	375	

Course Description

This course is a life science class in which you will study the cell, the molecular basis of heredity, biological evolution, interdependence of organisms, matter and energy, and organization in living systems and the behavior of organisms.

Standards

Colorado Academic Science Standards will be used throughout the school year. A copy of those can be provided if needed.

Learning Outcomes

I can identify the parts of a controlled scientific experiment. I can develop, interpret & analyze a controlled scientific experiment.

Obtain, evaluate, and communicate information how carbohydrates, lipids, and proteins play a role in the structure and function of living organisms.

Plan and Conduct an investigation regarding feedback mechanisms, and analyze and interpret data about how they maintain homeostasis in interacting body systems.

Use a model to provide accounts of how DNA's structure ultimately determines the functions of proteins and predict possible effects on the organism as a result of mutations.

Apply concepts of statistics (correlation) and probability to explain why offspring are genetically different from their parents and the mechanisms that lead to variation.

Construct an explanation based on scientific evidence for how natural selection leads to adaptation of populations as a result of: (1) the potential for population increase, (2) genetic variation and heritability, (3) competition for resources, and (4) differential survival and reproduction.

Develop a model to illustrate the cycling of matter within an ecosystem and the flow of energy among organisms within an ecosystem.

Develop a model to illustrate the flow of energy through autotrophs and heterotrophs that includes the relationship between photosynthesis and cellular respiration.

Required Supplies

1. Notebook
2. Pens/Pencils/Paper

Grading

Students will be graded on a 4 point scale for all assignments

Point	Letter Grade	Explanation
3.0-4.0	A	In addition to the performance score of 3.0, the student demonstrates in depth inferences and applications that extend beyond what was taught.
2.5-2.99	B	There are no major errors or omissions regarding any of the information and/or processes (simple or complex) that were explicitly taught. This level is mastery
2.0-2.49	C	There are no major errors or omissions regarding the simpler details and processes, but there are major errors or omissions regarding the more complex ideas and processes.
1.0-1.99	D	With help, the student demonstrates a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.
Below 1.0 or No Evidence	F	Even with help, the student cannot demonstrate understanding of the simple details.

School Policies

REQUESTS FOR HOMEWORK

Students requiring homework assignments due to extended excused absences (three days or more) should initially contact the attendance office. The attendance office will notify teachers and collect assignments from individual teachers. Assignments should be ready for pick up 24 hours after a request has been made. Please call the attendance office to check homework status.

MAKE-UP WORK DURING ABSENCES

Any time a student misses a class for any reason whatsoever, that student will be expected to contact each teacher and complete the make-up work in order to achieve the learning objective. This includes field trips, school activities, suspensions, group sessions, truancies, and the like. Make-up work is required and students who have been absent from class must request make-up work from the teacher no later than the next class meeting. Teachers will determine a reasonable amount of time for make-up work when students are absent, using a two days for every one day absent guideline.

Teachers may provide an "alternative" learning experience for make-up work to any student who requests it upon returning to class. For example, a student may have been absent from a class at which the daily learning objective was achieved by means of a class discussion. At the teacher's sole discretion, students who were absent during that discussion might be assigned a two or three-page written essay due three or four days after the student's return to class as an 'alternative' learning experience for that objective. Teachers will give academic credit to all make-up work that complies with the above guidelines. The only exception is that teachers have the choice whether or not to give academic credit to the make-up work from an unexcused absence. If the absence was unexcused, the teacher should provide feedback but is not required to give credit for the work.

TARDY POLICY

After three tardies teachers will conference with the student and contact home. After 5 tardies students can be referred to the Learning Center and additional consequences may be assigned.

PASSES

Students who leave the classroom or are excused from class must have a pass with correct validation by the teacher. School officials may send for a student using an authorized Administrative Pass. Students who are without official passes will be subject to disciplinary action. Passes will not be given in the first 10 minutes or last 10 minutes of class.

NON-ACADEMIC TECHNOLOGICAL DEVICES

Aurora Public Schools believes in providing environments that optimize learning and teaching and are safe, secure, and well maintained. As such, all personal electronic devices* shall not be seen nor heard during the school day in academic areas of the building from 7:30 A.M. to 3:45 P.M. *Cell phones, iPods, headphones, portable speakers, MP3s, tablets, cameras, etc. **Aurora Central High School is not responsible for lost, stolen or damaged electronic devices.** This includes electronic devices that are confiscated by staff. Aurora Central High School reserves the right to not investigate lost, stolen or damaged electronic devices.

Classroom Policies

- **Be Present:** In order for you to learn, you must be present. The expectation is that you are in the classroom, willing and ready to learn each day. This class is fun but it is also challenging. If you miss class, you will get behind which ultimately causes you more work.
- **Be Prepared:** Bring your notebook, pencils, pens, and assignments with you to class every day. If you forget your homework in your car, locker, etc. you will not be permitted to go get it after the bell has rung.
- **Be Respectful and Courteous:** Please remember that you are not the only one in the class, and that you are to treat others in a tolerant, considerate, courteous, respectful manner at all times. This includes being on time, not sleeping in class, doing your own work, keeping your hands to yourself, speaking in a mature manner, using appropriate language, being helpful, participating in class, etc. Also, keep in mind that you determine much of the climate of the classroom with your actions (spoken, written, and the use of gestures), if you wish to keep the classroom environment one conducive to learning, fun, and productivity, then please use common sense when dealing with your fellow classmates, and myself. In general treat others how you wish to be treated, but please try to think a little before acting. If you are have issues with another students please bring it to my attention as I do not see things that happen outside of class or on social media.
- **Do Your Best:** This includes actively participating in each and every class, activity, assignment, discussion. You will only get out of class as much as you put in. Please, please, please.....**ASK QUESTIONS!** If you don't ask you'll never know!
- **Homework** -Homework consists of a variety of things including introduction to new material, practice opportunities, intervention, and remediation. Like an athlete who must condition, practice, and refine their skills to improve their performance, students must also practice and refine their skills through homework to improve their learning. Teachers are expected to assign homework and students are expected to do it! Homework is essential and provides information to students, parents, and teachers about the student's progress.
- This is a Science Laboratory. There is **NO** eating or drinking allowed in class.
- All scientific laboratory safety rules will be strictly enforced during lab, failure to follow these will result in a referral to the dean.
- Use the computers and other equipment properly and carefully
- Use the internet appropriately for class work only; NOT for email (only school email), surfing the web, Facebook, messaging or playing games.

Equipment use:

You will be using a lot of different equipment in this course. The equipment you will be using is both sensitive and expensive. Here are just a few examples of some of the equipment you will use and their costs:

Electrophoresis equipment \$595 each
Microscopes \$429.84 each

EKG sensors \$140.65 each
Hand grip heart rate monitor \$110.58 each

- It is your responsibility to use ALL equipment and supplies appropriately, carefully, and according to the instructions you are given, and to ensure that they remain in good condition (for example, not scratching up the computers).
- Misuse of equipment and supplies could result in your not being able to use the equipment, which would jeopardize your standing in the program.
- If the equipment is damaged because you did not use it properly and carefully, you will be responsible for the cost of replacing it.

Tear off and return THIS PAGE only and return to Mr. Van Der Kwast

I have carefully read the expectations of this course and agree to support the goals and initiatives of the course. I will show up, speak up, stand up and go further than I ever thought possible.

Student name: _____ (print)

Grade _____ Period _____

Student Signature: _____

Parent/Guardian Name: _____

Parent/Guardian Signature: _____

Parent/Guardian Phone Number: _____

Parent/Guardian Email: _____