

Biology 2020-2021

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Course Description: In this course scholars will develop a fundamental understanding of the role of bio-macromolecules, their structure and function as related to life processes. The scholars will then analyze how genetic information is passed to their offspring and how these mechanisms lead to variability and hence diversity of species. They will use cladograms and phylogenetic trees to determine relationships among major groups of organisms. Scholars will be able to recognize the central role the theory of evolution plays in explaining how the diversity observed within species has led to the diversity of life across species through a process of descent with adaptive modification. The course objectives are based on the Department of Education's – Georgia Standards of Excellence which can be found here: [Science Georgia Standards of Excellence Georgia Department of Education March 31, 2016 • Page 1 of 4 Biology Standards The Sci](#)

Units of Study:

- **Unit 1 - Extreme Athletes:** Scholars will examine the lifestyle of pro-athletes to determine how the structure of the macromolecule affects the function and how enzyme structure determines function. We will also study how organelles work together to create macromolecules and maintain homeostasis.
- **Unit 2 - Eat or Be Eaten:** Scholars will analyze how matter flows through ecosystems and is constantly cycled through photosynthesis and cellular respiration. Scholars will also communicate information to assess the interdependence of all organisms on one another and their environment.
- **Unit 3 – Superheros:** Scholars will explain the role of meiosis in reproductive variability, predict and explain patterns of inheritance, and use the rules of probability, to analyze dominance, codominance, incomplete dominance.
- **Unit 4 – Mystery Creatures:** Scholars will use be able to explain patterns in structures and function among clades of organisms, determine patterns of common ancestry, and compare and contrast the characteristics of viruses and organisms.
- **Unit 5 - Hostile Takeovers:** Scholars will be able to communicate information about the use and ethical considerations of biotechnology in forensics, medicine, and agriculture.
- **Unit 6 – Disasters:** Scholars will predict the impact of environmental change on the stability of an ecosystem and design a solution to reduce the impact of a human activity on the environment.

Grading:

- ★ **Tests:** are worth 100 points each and you can expect 3-4 major assessments (tests) per 9-week period. Tests will cover knowledge & application of important concepts.
- ★ **Quizzes:** (number of quizzes per grading period vary, 1 point per question). Quizzes can be announced or unannounced as needed and cover material studied since the last test or over a specific day's material. BE READY
- ★ **Projects/peer group debates/writing assignments:** when given, these are worth somewhere between 50 to 100 points.
- ★ **Labs:** (15 – 30 points) all lab grades will be based on lab dress code, participation, and the lab data sheet/report (every student turns in his or her own lab report).
- ★ **Daily/class work/homework:** these assignments range from 2 to 20 points. It is important to understand that you will NOT turn in all work that you do in class or at home. Much of the work turned in is work assigned in class. Some we will do as a class & others will be done individually. I do not believe in homework for the sake of being able to assign homework. If it is assigned it is because it has a purpose & needs to be completed.

Semester Grades: The grades given throughout the semester = 90% of the semester grade. The grade obtained from the **mid-term/final exam = 10% of the semester grade**

Classroom Rules & Expectations:

Scholars are expected to:

1. Follow school-wide policies (this includes dress-code, tardies. & use of technology)
2. Come to class with all supplies (paper, pencil, etc)
3. PUT YOUR PHONE AWAY
4. Be in class, listen, take notes when necessary, and participate in ALL class activities.
NOTE: Scholars are NOT allowed to do work for other classes until AFTER completing all Chemistry work and then, ONLY with specific permission of the teacher
5. Sleep at home, not in class
6. Food/drink are NOT permitted. Water is okay, except during labs
7. Have a good attitude towards learning and don't be afraid to ask questions
8. Do your own work – NO CHEATING!

Plagiarism:

Plagiarism is the act of claiming the work of others (ideas or words) as your own. It is academic dishonesty and, like other forms of cheating, hurts the scholar who engages in it. Also, it diminishes the efforts of scholars who did the hard work of learning and creating to then have their ideas and words stolen. Scholars must always cite their source material. When advisors are concerned that scholars have committed plagiarism, they may submit scholar work to an anti-plagiarism website such as Turnitin.com.

At Furlow, scholars must write original papers, letters, articles, poetry, scripts, and any other assigned written communication. Any writing assignments from any class (not just ELA) must be at least 67% original and contain no more than 33% cited material. Any work turned in which contains paraphrased or quoted material must have the proper citations using MLA or APA guidelines. Failure to adhere to these guidelines may result in no academic credit and additional disciplinary action. The minimum penalty for plagiarism is a zero for the work. Advisors may request resubmission of the assignment with original work.

Scholars who willfully disregard the plagiarism policy may be disciplined subject to the discipline schedule. Repeated offenses over the scholar's academic career may result in further actions by the administration. All instances of plagiarism will be recorded in Infinite Campus.

Cheating will not be tolerated at Furlow; scholars who cheat will be disciplined subject to the discipline schedule.

Grades 9-12 Late Work Guidelines

All assignments, including In-class, homework and large projects will be due on the assigned date **during** the class period for which it is assigned.

Full credit will be given for work submitted by the assigned date. Scholars may earn partial credit for assignments submitted past the assigned date/class period based on the following:

- Up to 3 days after the due date/class period - 10% deduction for **each** day past the assigned date
- Work missing beyond 3 days/class periods will not be accepted and will be marked as receiving a zero (0)
 - Example: Due on Monday and turned in on Thursday = no higher than 70%, 10% off Tuesday, 10% off Wednesday, 10% off Thursday
 - Another example: Due on Monday and tried to turn in on Friday = zero - not accepted
- Missing Work Form must be completed and turned in with late work

How Absences Affect Late Work:

- **Excused Absences:** Full credit will be given to scholars with excused absences for work submitted by updated due dates based on our handbook, page 15.
- Extension to due dates equal to number of days absent
- Upon returning to school, complete Missing Work Form to update due dates with advisor

- **Unexcused Absences:** Full credit will be given to scholars with unexcused absences for work submitted by original due dates, or upon their return to school, when original due dates occurred during absences.

Electronic Devices:

Furlow prohibits the use of the following electronic devices on the school campus unless explicitly directed by advisors: cell phones, iPods, iPhones, iWatches, CD players, digital cameras, electronic games and toys, laser pointers, laptop computers, tablets, iPads or any other electronic devices (unless a child's I.E.P. requires the use of such a device).

Scholars shall turn off and secure their cell phones in their book bag or other area designated by their advisors (door hanger, box, cubbies, etc.) during the school day. Scholars should not "show" their phones to their peers or pull them out for any reason (i.e. checking the time). The school will not be held responsible for lost or damaged student cell phones. If it becomes necessary for a scholar to use the cell phones for any reason, the child must get permission from school personnel and use the phone in the presence of school personnel. Parents, PLEASE do not ask your child to call or text you from a cell phone during school and please do not text or call your child on his/her cell phone during the school day. Should you have an emergency, please call the front office. If a cell phone is seen or heard, it will be confiscated. The guidelines for cell phone or other electronic devices violations are as follows:

- 1st offense: Student must pay \$6.00 at the end of the day (or the following day if it is taken up after 11:00am).
- 2nd offense: Student must pay \$7.00 after phone is kept for a week.
- 3rd offense: Student must pay \$10.00 after phone is kept for two weeks.

After 3rd offense: Discipline will be at the discretion of the administrators. If a student refuses to give a cell phone or electronic device to an advisor, advisor may write the student up on a discipline referral. Administrators may assign up to five days in ISS for non-compliance. Administrator will then take up the cell phone and it will be held for one month.