

Biology 20 Course Outline Winter 2019

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Biology 20 consists of 2 large units of study:

1. Energy, Matter and Ecosystems – (50%) ~39 days; Unit Exam Approx.

The constant flow of energy and cycling of matter in the biosphere leads to a balanced or steady state. This balance is achieved through various biogeochemical cycles and the processes of photosynthesis and cellular respiration. In this unit, students become familiar with the maintenance of this balance and explore how various human activities have affected the balance. We will also focus on the process of photosynthesis and examine how sunlight energy is converted to chemical potential energy.

Students become familiar with a range of ecosystems by studying their distinctive biotic and abiotic characteristics. Students are introduced to the concept of populations as a basic component of ecosystem structure and complete the unit by examining population change through the process of natural selection.

2. Energy, Matter and The Human Body (50%) ~39 days; Unit Exam Approx.

Maintenance of metabolic equilibrium in organisms involves a number of physical and biochemical processes. The human organism is used as a model system to examine how energy and matter are exchanged with the environment through the processes of gas exchange, digestion, excretion, circulation and the function of the motor system. A defense system contributes to equilibrium by eliminating pathogenic organisms. We will also focus on cellular strategies used to convert chemical potential energy to work done within the cell.

Necessary Daily Materials

- Pencil/pen
- Paper
- Notebook
- Computer/tablet
- Headphones

These materials must be brought daily to class. Failure to bring necessary material will result in time being owed at lunch hours.

Google Classroom and Moodle

The main resource for this course is the google classroom. Moodle will also be used for the course.

The following can be found on the moodle site:

- course outline
- homework calendar
- McGraw-Hill Inquiry Into Biology Chapters
- Online Labs/Simulations
- helpful links/videos for concepts
- notes and assignment

Class Expectations

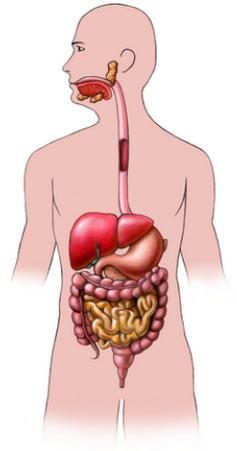
Student Expectations

- All students are to be mature and respectful of each other, the teacher, classrooms and the lab. Students are expected to maintain a clean and tidy classroom. Students are expected to follow all Provincial, Divisional, School and Classroom rules regarding prevention of the spread of Covid-19.
- Take responsibility for your own learning! Please ask questions and seek extra help if you do not understand. I am here to help you succeed! If I don't know you need help, I can't help you. When you're in class, be in class. Focus on the subject and learn what you can in the time we have.
- Be accountable for your own actions; mistakes happen and we can all learn from them! Please don't hide mistakes or poor choices from me. We will work through them and you will have more respect for yourself and from me.

Absence Protocol

If you are absent for a class, it is **your** responsibility to make up missed work

- The day of the absence, check the homework calendar and/or blog and if you are able to, make it up that day
- If you are not able to make it up that day, do your best to make up the work ASAP
- Check the class calendar to find new dates (due dates, quizzes, exams)
- Collect any new sheets that were handed out on the day of your absence
- Ask a friend or Mr. Schaller on what was missed if you are unsure



Grading

Final Exam: 25%

Unit tests: 25% (12.5% for Unit 1, 12.5% for Unit 2)

Classwork (Projects, Assignments, Labs, Quizzes) – 50%

Appeals: Lines of communications to appeal are as follows:

Student/teacher 2) Student/parent/teacher 3) Student/parent/teacher/learning lead

Use of Class Time: Students are expected to be ready to work when class begins, to use all class time effectively, and to complete any unfinished work on their own time. All assigned work is relevant and important, and practice is needed to become proficient. All assignments must be completed.

Extra Help: Any student who would like individual assistance should see me to book a time to come for help before or after school. Individual assistance will be provided to any student who shows a good work ethic and who uses class time effectively.

Homework: Any work not completed in class must be done outside of class time. Students are required to complete all assigned work. Work should be submitted on the due date. Late submissions may not be accepted after they have been marked and returned to students. An alternative assignment may be given to make up the missing grade.

Missing Quizzes and Tests: Students must write all quizzes and tests. Students who miss a quiz or test will receive a mark of zero unless I have been notified in advance or the absence is excused through the office. When necessary, quizzes/tests will be made up on a case-by-case basis.

Technology: We will be using a number of different technologies throughout the course on a daily basis. The following technology guidelines are expected:

- Phone should never make noise - silent mode in class.
- When anyone is speaking to the class (teaching, discussions, giving instructions, etc.), phone/tablet should be away or facedown, if not taking notes computer should be closed.
- Headphones are ok to listen to music at appropriate times (if you're not sure, ask) but never when anyone is speaking to the class.
- When you have instructions to use a certain device, application, or program, they should be followed. At that time, devices should not be in use for any other purpose.
- During work times, devices can be used to access information in any form that will help your understanding.
- If you are going to watch a video, you must use headphones.
- Use maturity and common sense when making decisions about the use of a tech device. The line between a productive use and a distracting use is pretty clear.
- Pictures and videos are NOT permitted to be taken during class without the express permission of all those in the video/picture AND the teacher due to issues of confidentiality and privacy. Students taking videos/pictures may be asked to erase the video and have it confirmed by the teacher and/or have their device temporarily taken away.

Plagiarism

- Plagiarism of any kind will not be tolerated. If you are unsure if you are committing plagiarism, see your teacher!
- Incidents of plagiarism will be dealt with by the teacher, learning leads and administration (if needed). Breach of academic integrity can result in a grade of zero. This includes allowing others to plagiarize your work.

If you have any questions or concerns about this class, please don't hesitate to contact me! Please understand that updates may be made to this document to best accommodate student learning as Covid-19 guidelines are updated. Students will be notified of any changes.