



Dalian Maple Leaf International School
2018-2019 Academic Year



Anatomy and Physiology 12

Course Outline

Course Overview/Summary

Biology 12 is a course that concentrates on Cellular Processes and Human Biology. The course allows students to develop an interest in and understanding of science by looking at themselves and seeing how their body systems are integrated to maintain homeostasis.

Laboratory skills are essential to Biology 12. These skills will be developed in lab activities that focus on the hypothetical as well as the practical. An emphasis on the processes of science is integral to the complete study of Biology 12 and will be integrated throughout the course.

The goal of this course is designed to prepare students for the standards and content of University level Biology and Biochemistry.

The **three themes** for Biology 12 are:

1. Biological molecules
2. Cellular Processes
3. Human (Vertebrate) Physiology

In order to achieve understanding of these themes we will focus on the following units:

Term 1

1. Big Idea 1 - Gene expression, through protein synthesis, is an interaction between genes and the environment
2. Big Idea 2 - Homeostasis is maintained through physiological processes

Term 2

3. Big Idea 2 continued
4. Big Idea 3 - Organ systems have complex interrelationships to maintain homeostasis.

Whole semester	
Mini-tests	10%
Short answer tests	10%
Science Fair	10%
Online Portfolio	70%
Total Term	100%

Portfolio:

- Your **portfolio** is your most important piece of work to show me what you have learned. Be creative in how you evidence your learning. This may include questions answered in class, home or in tests, voice recordings of you explaining things, notes of conversations we've had in class or even extra self-led research.
- **Mini-tests** will be short and regular in order to promote keeping on top of your work. I may not necessarily tell you about them in the lesson before!
- **Tests** will be held at the end of each unit. The multiple choice questions portion will be scored and recorded in PowerSchool whereas short answer questions will be self-assessed in class and can be used in your online portfolio if you feel you can show your understanding/skills.
- **Labs and assignments** will be held for each unit during class time and lab write-ups will be discussed for each. Labs and their write ups can be used to evidence curricular competencies on your online portfolio.
- The **science fair** will be done throughout the semester and may also be a source of evidence for your portfolio.

Classroom Expectations:

- **Participation:** Students are expected to come to every class *on time* and in uniform. You are expected to actively participate in classroom discussions, group activities, labs, and individual work.
- **Respect:** Show respect towards your teacher and fellow classmates, as well as the classroom environment and equipment. Keep a positive attitude!
- **Cleanliness:** No food or drink is allowed in the lab unless your teacher says it is ok. Please remove all garbage from your desk at the end of class!
- **Taking turns:** students are expected to raise their hand to speak or to ask a question.
- **Cell Phones:** Discretionary use. You have chosen to take this class and are ultimately responsible for how successful you will be.
- **Supplies**
 1. Text book and laptop (I will let you know when to bring laptop)
 2. Binder
 3. Lined A4 paper **or** A4 note book for HW questions and notes.