**Welcome to IB Biology!**

This class is a wonderfully connected and applicable class. We will be together for the last 2 years of your High School experience and I am hopeful that you will find Biology to be rewarding, challenging, and also enlightening. We are going to explore the world around from ecosystems to the biochemistry that makes life function. There are layers upon layers here.

We will use a structured backbone of the IB curriculum, using both the prescribed Oxford Textbook and a digital platform Kognity to track and ensure the expectations of the IB are addressed and met. We will also perform lab, investigations, group work and collaborative demonstrations. The skills you will acquire and elevate will extend beyond the life sciences but will hopefully make you a lifelong learner and enhance your curious minds.

**CORE TOPICS**:

1: Cellular biology

2: Molecular biology

3: Genetics

4: Ecology

5: Evolution and biodiversity

6: Human physiology

**ADDITIONAL HIGHER LEVEL**

7: Nucleic acids

8: Metabolism, cell respiration and photosynthesis

9: Plant biology

10: Genetics and evolution

11: Animal physiology

**OPTIONS**

Choice of one option in year 2:

A: Neurobiology and behavior

B: Biotechnology and bioinformatics

C: Ecology and Conservation

D: Human Physiology

Students will be completing the options as part of a tracked independent study over a 4 to 5 week period prior to mock exams (always subject to changed based on how the year progresses) . Students will create goals, establish content, and submit weekly reflections on their independent progress.

**MATERIALS**

Study will be expected to be present in class with completed notes pertinent to lecture topics. Pre-lecture work will be completed using the digital resource Kognity. Students will also be provide with the complete 2 year collection of IB resources, practice exams, and extra content through a shared Google Drive folder.

Planning will be posted on Veracross for each lesson. In addition, a weekly break down of the upcoming week will be sent to parents and students to keep all parties informed.

**DESCRIPTION**

Through the study of these topics students will appreciate that despite the great diversity of species and individuals, there is a fundamental unity with regard to structure, and dependence on a dynamic equilibrium and ecological balance. Discussion and study of theory is supported by considerable practical investigations and the use of computer tools where appropriate. Participation in the Group 4 Project will promote an appreciation of the multi-disciplinary nature of research.

Emphasis is on concept and skill development and the application of concepts to social and political issues. The IB core syllabus is followed and IB standards are used for assessments. Course activities will include lectures, activities, practical and experimental work, field work, participation in the Group 4 project, self-study, and research projects.

**CLASSROOM EXPECTATIONS**

1. Be on time, Be prepared, with all required materials, Be respectful
2. Hand work in on time
3. Plagiarism/cheating – zero tolerance. See student handbook
4. Laptops, while required material do not need to be used at all times. When a laptop is being used students should be aware of a zero tolerance policy regarding: games, Facebook or other social networking.
5. Files submitted electronically will only be accepted if named in the following format: Lab title – Student Name
6. Missed classes – you are expected to consult the student overview sheets or a friend to see what you missed. All materials will be available for download from Google Drive. It is your responsibility to catch up.
7. Missed tests – if you know you will be missing a class for athletics or any other reason, you must make arrangements beforehand. If you miss a test because you are ill you must come and talk to me to arrange a make-up time.

**Internal Assessment**

Students will be responsible for the completion of an Internal Assessment Laboratory report. The design, research, data collection, and processing will be carried out with supervision and students will receive feedback on their rough draft.

**EXTRA HELP**

Extra help is always available upon request – most often after school. Please see your teacher to schedule a time.

The website <http://ibchristie.weebly.com> contains all the resources but topic and section. Additional resources, videos, animations, etc can be found on the website.

A Google Hangout is created for each class and level to provide students a forum for contact. I am also available on individual hangouts and can be reached at jchristie@unishanoi.org