IB Diploma Programme Year 1

**Teacher Information**

Ms. Alex Shafer

Room 811

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**Ms. Shafer’s Schedule:**

1st and 3rd period → IBDP Biology Year 1

4th, 6th, and 7th period → College Prep Biology

8th period → CFA Biology

2nd and 5th period → Duty or Planning

**Overview:**

Diploma Programme Biology is both a challenging and rewarding experience. DP Biology is a rigorous two-year course that takes a holistic approach to how the subject is taught as well as how it is learned, with two years to complete the extensive, college-level curriculum. Students will develop their critical thinking skills as they develop their content and laboratory knowledge. DP Biology emphasizes the direct correlation between concepts and their real world, everyday applications. Making science more relevant, practical, and tangible inspires a deeper appreciation of the sciences and how they apply in meaningful ways to the daily lives and experiences of every student. **This class will be significantly more difficult than the minimum SOL level Biology from 9th grade.**

**Course Description:**

“Biology is the study of life. The vast diversity of species makes biology

both an endless source of fascination and a considerable challenge.

Biologists attempt to understand the living world at all levels from the

micro to the macro using many different approaches and techniques.

Biology is still a young science and great progress is expected in the

21st century. This progress is important at a time of growing pressure

on the human population and the environment.” (IB Biology HL Subject Brief, 2016). The depth of this course is at least at the level of collegiate level introductory biology courses, and it is expected that students perform at this level.

**Core Support: Creativity, Service, and Action**

All IB programs share common beliefs and values about teaching and learning science. Specifically, in this course we will focus on the following in order to encourage student engagement in the world around them:

* **Learning through investigation:** Students construct meaning by designing, conducting, and reflecting on scientific investigations. The specific process, which encourages hands-on experience, inquiry, and critical thinking, enables students to make informed and responsible decisions, not only in science but in life.
* **Collaboration:** Students are provided opportunities to work individually and with their peers to learn about science within and beyond the classroom. They develop safe and responsible working habits in practical science.
* **Service:** There will be opportunities for service to support our school and community, as well as learning through service.

**Learner Profile:**

“The aim of all IB programs is to develop internationally minded people who, recognizing their common humanity and shared guardianship of the planet, help to create a better and more peaceful world.” (IB Biology Guide). As IB Learners, students should strive to be:

* Inquirers
* Knowledgeable
* Thinkers
* Communicators
* Principled
* Open-Minded
* Caring
* Risk-Takers
* Balanced
* Reflective

As students in the IB program, students are expected to understand and strive to find strengths in each area of the learner profile. This Biology course will specifically emphasize the Inquirer profile through open-ended laboratories and the Knowledgeable profile through the examination of the currently held theories and facts related to the subject. Also, students will develop their Principled and Reflective profiles through the study of past and current practices that take place in the scientific world.

It is expected that students approach the content and science disciplines as Thinkers and with the Open-Minded profile in mind. Emphasis on the Inquirers profile lends to the realization of the Risk-Takers and Reflective profiles. While we may not consistently reference the learner profile directly in every assignment, it is my goal for us to constantly keep these profiles at the forefront of our knowledge discovery and inquiry instruction.

**TOK Connections**

TOK lessons can support students in their study of science, just as the study of science can support students in their TOK course. TOK provides a space for students to engage in stimulating wider discussions about questions such as what it means for a discipline to be a science, or whether there should be ethical constraints on the pursuit of scientific knowledge. It is recommended that students spend time referencing the TOK connections within the course textbook to expand cross-curricular connections and opportunities for critical thinking. It is expected that you will refer to the TOK sections of the topics in the textbook to enhance your understanding of the content and make critical connections with the content and critical thinking skills.

**IA’s**

Students will begin their IA’s for this class in marking period 3. By the end of their IBDP Year 1 Biology course, they must have submitted (and gotten approved) their research question, and found at least 2 sources to help them in their IA’s. IA’s will be completed by December 2022, in their second year of IBDP Biology. Guidance will be offered throughout the IA process, however, student collaboration of any kind is not permitted. Resources will be provided that allow for you to develop your ideas, however, be sure to come up with your OWN questions, throughs, and ideas. You will receive a student and parent agreement in marking period 3 when this starts.

**Building the Diploma Programme and Progressing Towards External Exams**

“The Diploma Programme primarily focuses on summative assessment designed to record student achievement at, or towards the end of, the course of study.” DP Biology is designed to allow students the opportunity to explore the biological sciences in greater depth and ignite them with a passion for inquiry. By encouraging students in these two areas, it is this course’s goal to expand the Diploma Programme and prepare students for their external exams. Summative assessments given during the course will be formatted and designed to prepare students for the external exams, however, these exams will not be split into three components as the external exams are divided.

*The biology DP external exam is considered to be one of the most difficult worldwide, with sciences often preventing students from achieving the diploma. Thus it is critical that students are accountable for studying and completing the course work. Students must maintain their knowledge throughout the 2-year class, as the external exam will test knowledge from both years.*

**Responsibility**

The fulfillment of individual responsibilities is key, but teamwork is just as important to building a strong conceptual foundation. Meeting in study groups is strongly encouraged. You never know how well you understand a concept until you are asked to explain it to others. Our class will work in collaborative groups throughout the year. Your overall success in this class depends on your personal responsibility. It is your personal responsibility to come to class prepared, work diligently, ask for help when needed, and complete tasks on time.

Students are expected to attend class with their completed work and charged computers. Students will not be excused from a computer-based assignment unless there are confirmed technical issues. Additionally, assignments that are required to be printed will not receive full credit if they are only submitted online. This applies mostly to the internal assessment, which is a large component of the course. These assignments will be explained in detail prior to the due dates in order to allow plenty of time for printing and submitting. If there are difficulties accessing a printer, please reach out to me and we will solve the problem together.

**Homework**

Homework assignments exist as a means to reinforce the significant concepts and skills of the course. Primarily, homework assignments will consist of finishing up classwork that was not completed within class time. However, there may be some occasions where additional reinforcement or exploration is required, in which case it is expected that students do their best to complete assigned homework.

**Group Work/Labs**

Students will complete group labs and projects throughout the duration of this course and will be expected to utilize group members effectively while still completing their own assignments and writing in their own words. Regardless of the group structure, it is imperative that each student’s work is their own and that work is done in a fair manner that respects the intellectual integrity of all group members. Group work that is submitted with evidence of cheating or copying will result in a grade of zero, a referral, and will be reported for cheating.

**Classroom Rules**

We will construct our classroom rules and expectations together as a class, however, there are a few core expectations that students should be familiar with beforehand.

* Respect one another and our space in your words, tone, and actions
* No eating, drinking, or chewing gum in the classroom (this is a lab safety consideration)
* Be honest, malpractice (cheating/plagiarism) will not be tolerated on any level. Citing your work is imperative. If more than three words are taken from that source, it must be cited.

**Safety and Equipment Policies**

Students will be provided with training for understanding the use of science safety practices and equipment. It is expected that students understand and utilize safety procedures and equipment properly. Certain safety infractions when there is no danger warrant significant consequence and should be made note of: pulling the safety shower, activating the eye wash, etc. Take note of all safety and equipment lessons provided, and abide by these rules and regulations to ensure optimal performance in the lab. Students will be allowed to access lab equipment for IAs outside of school upon request, however they must schedule with me **at least 2 weeks prior to the date the equipment will be needed**. This is to ensure materials are available, accessible, and used safely. **Safety contracts must be signed and students must earn a 90% or higher on the safety test before being allowed to complete any lab.**

**Plagiarism and Cheating Policy**

Cheating is not tolerated in any manner. Therefore, it is important that all work you submit is your own. This helps me as I can see what each student understands or struggles with. I want you to have good grades! So complete assignments yourself so I can help you! As long as you do the work you are given, we can work towards success together. We are in a condensed course and need all the help we can get, however, taking shortcuts will not be permitted and will be reported for lack of academic honesty. Students will need to sign an academic honesty agreement for the class in order to participate.

**Grading**

Grade Conversions:

| IB Grade → Henrico Grade | IB Grade → Henrico Grade |
| --- | --- |
| 7 → 94-100 | 3 → 66-72 |
| 6 → 87-93 | 2 → 58-65 |
| 5 → 80-86 | 1 → 50-57 |
| 4 → 73-79 | 0 → 0-49 |

Students should expect three to four major grades (tests, projects, labs), and several projects per nine weeks.

Grades in this class will be calculated using the following weighting:

* Tests and Projects- 30%
* Quizzes and Labs- 30%
* Classwork- 30%
* Independent Practice- 10%

**Late and Missing Work Policy**

Due dates will be made clear for all assignments prior to students receiving them. Since this is a fast paced course it is imperative to pay careful attention to due dates and not procrastinate. Students may be expected to turn in work as a hard copy or digitally. Digital work is expected to be turned into Turnitin or Schoology (depending on the assignment) by 8am on the due date. All formative work (not tests, projects, or labs) will be accepted up until the end of the unit (whenever we take the unit test). Major projects and labs will be dealt with on a case by case basis if they need to be made up or turned in late.

**After a unit ends, a student will not be able to earn above a 55% on work for that unit.**

If you miss a test day, I need an email from your parent/guardian with a working phone number in order to verify the absence, and you will be expected to make up the test next time I see you in class.

However, all of these policies are subject to change depending on how COVID, snow days, or other county decisions affect these policies. Additionally, I understand that we are all human and things happen. Students are always welcome to come discuss assignments with me so we can build the best path to success.

**Extra Credit**

There may occasionally be extra credit offered on assessments, generally no more than 3 points. There may be other opportunities for extra credit, but they should not be expected.

**Test Corrections**

Test corrections will only be available for short answer/extended response questions, for up to 1 calendar week after the test was given. Students are able to earn up to half credit back by doing test corrections, for example, a student who got an 80% on a short-answer only test may earn up to a 90% if they complete all the test corrections.

**Grace Policy:**

We are still in a pandemic, and we are all human. Things happen, and I aim to be as understanding of that as reasonably possible. So I have several policies to give students grace in order to best support their success.

Extensions- students may ask for reasonable extensions up until 24 hours before the due date. This means if work is due at 8am on Tuesday, students have UNTIL 8 am Monday to ask for an extension. Extensions will not be granted with less than 24 hours until the due date.

Redos- For some assignments, students may have opportunities to “redo” it, or make corrections, for some points back on their grade. How this looks will vary based on the assignment and will be discussed in class.

**Cell Phone and Technology Policy**

Students are expected to come to class with their laptop and charger every day. Cell phones are expected to be up and away during class time, unless given explicit permission for certain activities (such as taking pictures during a lab).

If a student is expecting a call, their ringer may be on with prior permission from the teacher. Students can earn extra credit points for “parking” their phone at the front of the room at the beginning of class. If a student chooses not to “park” their phone, it must remain in their backpack for the duration of class.

During tests, it is expected that ALL electronic devices (phones, smart watches, tablets, etc.) are away, with the exception being laptops if it is an online test. Having electronic devices out during a test is considered a violation of the Henrico County and IB honor code, and will result in a failing grade on the test, as well as a referral to administration.

**Materials (\*\* indicates optional)**

* 3 ring binder (2 inches or larger)
* Dividers (at least 8)
* Loose Leaf Paper
* Pencils with erasers
* Laptops and Chargers (every day!!)
* Pens\*\*
* Page Protectors\*\*
* Graphing Calculator\*\*
* Oxford IB Biology 2014\*\* (You will receive a class copy, only purchase if you want a personal copy to keep)

**Attendance**

The Code of Virginia requires compulsory attendance for students in grades K-12. Attendance will be taken in the virtual environment. A student will be counted as present if the student is observed by the teacher to be visually present during a synchronous (live) lesson during the class. If the student must be absent for a valid reason, and completes the warm-up activity for the class by 12 midnight, the student will be counted asynchronously present for the class.

When a student is unable to attend class or meet an assignment deadline, parents or guardians should notify the teacher and the attendance office.

**Syllabus Agreement**

By signing below I assure that I have read and understand the terms of this class syllabus. Any questions should be addressed prior to signing. This form must be returned by **Tuesday, September 14th, 2021**.

Student Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Signature:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Email:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Phone:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_