**Name of Subject:** Biology

**Stage:** 1 (Year 11)

**General information:**
Learning and working in Biology enables students to understand the structure and function of living things and how these living things interact with other members of their own species, with other species, and with their environments. In Biology, students learn about the cellular and overall structures and functions of a range of organisms, such as how those organisms gain nutrition and reproduce and how they live in a variety of ecological habitats. In Biology, students have the opportunity to engage with the work of classical and modern biologists and to join in and initiate debates about how biology impacts on our lives, society, and the environment.

**Content:** 3 Areas of Study:
1: Cellular Biology: One of the unifying concepts of biology is that all living organisms are composed of cells and cell products. Some organisms are unicellular, while others are multicellular and contain many different types of cells.
2: Physiology: Physiology is the study of the structure and function of living organisms. In most organisms, cells are aggregated into tissues and organs, forming complex systems. These systems carry out specialised functions such as photosynthesis, digestion, and transport.
3: Ecology: Ecology is the study of the interactions of organisms with each other and the abiotic environment. A study of an ecosystem could involve examining how the distribution and abundance of organisms in a community are affected by factors such as temperature, light, rainfall, the presence of other organisms, and soil type.

**Assessments:**

Assessment Type 1 Investigations Folio (50%): Practical Investigations and an Issues Investigation.

For practical investigations, students formulate hypotheses, design and conduct an investigation, identify variables, collect, analyse, and interpret data, evaluate results, draw conclusions, and communicate their knowledge and understanding of concepts. These may occur in one assessment or in separate assessments. Practical investigations may be conducted individually or collaboratively, but each student presents a separate report on the investigation.

Assessment Type 2 Skills and Applications Tasks (50%): Tests, Exam, Oral Presentation or Excursion report

Skills and applications tasks should be designed to enable students to demonstrate knowledge and understanding of the key biological concepts and learning covered in the program, and to apply this knowledge to solve problems. Some of these problems could be defined in a practical, social, or environmental context. Students use appropriate biological terms and conventions to explain links between biological concepts.
**Prerequisites:** none

**Preferred prerequisites:**
Whilst there is a practical component to this subject, students need to be prepared to write essays up to 1000 words several times in the year, including a 2 hour exam at the end of each semester.