



## **Anatomy & Physiology 12**

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### **Introduction**

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Welcome to Anatomy & Physiology 12! In general, the first half of the course focuses on biochemistry – the molecules of life – the elements, the bonds, the types of organic molecules, and their functions in living organisms. The second half explores the structure and function of organ systems in the human body. Within this broad scope, Anatomy & Physiology 12 offers an exciting array of intellectual adventures and opportunities. Prepare to delve into the wonderful inner workings of the human body!

### **Topics in Anatomy & Physiology 12**

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Biochemistry  
DNA & Protein Synthesis  
The Cell & Membrane Transport  
Enzymes and the Digestive System  
The Cardiovascular System  
Respiration and Excretion  
The Nervous System  
The Reproductive System

### **What is Anatomy & Physiology 12 like?**

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The learning requirements for Anatomy & Physiology 12 are ambitious, detail driven and, sometimes, quite complex. Students of the discipline learn the basic principles of animal biology and anatomy through posted lesson content, online demonstrations, as well as laboratory experiments in both virtual and real world settings. Note that there are two face to face labs that must be performed at iConnect: one in Unit 3 and another at the end of the course.

All of these strategies are designed to work together to help build a deep understanding of biological principles and processes. Students should know that there is a great deal of new vocabulary as well as a large set of interconnecting processes to be made sense of in this course. Also, learners are expected to use their newly won knowledge to solve problems in novel situations. Scientific literacy and fluent numeracy are assumed. Students who do not take Chemistry 11 prior to this course tend to be especially challenged by the first half.

## Assessment

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Grades will be calculated according to the following weightings.

Substantive Assignment (Unit 1)	5 %
Assignments	18 %
Labs	17 %
Unit Tests	40 %
Final Exam	20 %

Mastery is encouraged. Students who wish to improve their work and resubmit are invited to discuss their options with their teacher.

When the authenticity of student work is in question, the teacher reserves the right to base final grades on teacher supervised assignments and assessments.

Please note that official registration in the course occurs only after the student has completed Unit 1 (otherwise known as the substantive assignment). This means that the course will not appear on any official reporting document until the student has fulfilled this requirement.

The substantive assignment addresses the following:

**Big Idea:** Homeostasis is maintained through physiological processes

**Curricular Competencies:**

Biological molecules:

- water, acids, bases, buffers
- dehydration and synthesis reactions
- organic molecules: carbohydrates, lipids, proteins, nucleic acids, ATP

## Attendance Policy

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Please be aware that Island Connect K -12 does not have a general attendance requirement. However, it is in your best interests to make a habit of checking in with Kim Pepler (your teacher) at least once a week – face to face, by email, phone or through the virtual office link above. Past learners have stated that such contact promotes engagement with the course materials and serves to motivate them to complete the work in a timely fashion.

## Completion Timeline Expectations

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Successful learners typically finish within four months of initial enrollment in this course. COMMIT to achieving your goals! Get a calendar out and plan how you and when you will complete each lesson in the first two units immediately.