AICE BIOLOGY AS

FL DOE Course # 2000321 / 2020-2021

CONTACT INFORMATION

Mr. William Lastowski

Room 4-312
Phone: (386)734-7190, extension 76470
Email: **wmlastow@volusia.k12.fl.us**
Website: http://www.uhstitans.com/aice-biology
Remind: text **@k4f9ec** to 81010

COURSE DESCRIPTION

Cambridge International AS Level Biology builds on the skills acquired at the Cambridge IGCSE (Pre-AICE) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, a section on some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination. The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path. Cambridge International AS Level Biology is ideal for learners who want to study biology or a wide variety of related subjects at university or to follow a career in science.

Lab activities ranging from traditional life science explorations to original experimental design are a routine part of the course. The lab component presents the opportunity for students to practice scientific inquiry and become familiarized with a variety of lab equipment and practices, such as microscope and slide preparation technique and the use of probeware technology.

Successful completion of AS Level Biology, specifically earning a passing overall score on the Cambridge Papers associated with this course, will award an AICE diploma candidate one point in the mathematics and science component of the Cambridge AICE diploma. A passing score also qualifies for credit at various colleges and universities.

TEXTBOOK: *Cambridge International AS and A Level Biology Coursebook* (4th edition)
by Mary Jones, Richard Fosbery, Jennifer Gregory and Dennis Taylor

GRADING POLICY

- Grades shall be calculated at the end of each marking period as follows:
  40% Formative Assessments + 60% Summative Assessments

  Please refer to Section 2 and Section 3 of the Volusia County Schools Grading Guidelines for Secondary Schools for further information.
  http://www.uhstitans.com/vcs-secondary-school-grading-policy
- Daily student attendance is extremely important for success in AICE Biology AS.
- All missing work must be completed in a timely manner as outlined by the Volusia County Schools Grading Guidelines for Secondary Schools.

COURSE OVERVIEW

Marking Period	Curriculum Topics	Assessments
1st Quarter (weeks 1-9)	**Orientation** Classroom Policies and Procedures Digital Component: Canvas and Microsoft Teams Content Review: Bacteria and Viruses Case Study: COVID-19 **Unit 1 – Biological Molecules** Water Organic Molecules Biochemical Tests **Unit 2 – Cells as the Basic Units of Life** Cells and Microscopy Size and Magnification Calculations Prokaryotic versus Eukaryotic Cell Structure Bacteria and Viruses (revisited) Plant and Animal Cells Cell Membrane Structure and Function Transport Across Membranes	Unit 1 Test Lab Practical & Report Unit 2 Test
2nd Quarter (weeks 10-19)	**Unit 3 – DNA & the Mitotic Cell Cycle** Chromosome Structure Overview of Mitotic Cell Cycle DNA Replication Mitosis and Cytokinesis Protein Synthesis **Unit 4a – Transport & Gas Exchange in Plants** Plant Anatomy and Histology Transport of Water and Mineral Ions Transport of Assimilates Structure to Function: Plants	Unit 3 Test Lab Practical & Report Unit 4a Test
3rd Quarter (weeks 20-27)	**Unit 4b – Transport & Gas Exchange in Animals** Mammalian Circulatory System Mammalian Heart Human Gas Exchange System Carriage of Respiratory Gases Disease and Smoking **Unit 5 – Disease & Protection Against Disease** Infectious Disease Antibiotics Immune Response Antibodies Vaccination	Unit 4b Test Lab Practical & Report Unit 5 Test
4th Quarter (weeks 28-37)	REVIEW	Cambridge Assessment: Papers 1, 2, and 3 (Advanced Practical Skills)

RETAKE POLICY FOR SUMMATIVE ASSESSMENTS

AICE Biology students can retake one summative assessment per marking period after completing the remediation process to earn a higher grade. Any reassessment must be completed **prior** to the next assessment. *Please refer to Section 4 of the VCS Grading Guidelines for Secondary Schools (2016-2017) for further information.*

SUBMISSION OF WORK

Most assignments will be submitted digitally/online. Make sure your **full name** is recorded on all submitted work. Please use the following format to name documents that you are submitting by email or through Canvas:

LastName_AssignmentType_AssignmentName

Example: Lastowski_Homework_Homework01

CLASSROOM EXPECTATIONS

- **Be Prompt** – Arrive to class on time and be in your seat before the bell rings.
- **Be Prepared** – Please bring your notebook, class folder, and a pen and pencil to class every day.
- **Be Polite** – All students have the right to learn. Treat your fellow students as you would like to be treated. Do not make fun of other students or use inappropriate language. Bullying in any form will not be tolerated.
- **Be Productive** – I encourage you to ask questions if you do not understand something and need clarification or a different type of explanation. I welcome you to share things that you may have read or seen on television or online that you think are related to what we are discussing in class.
- **Be Positive** – Biology is an amazing branch of science. Your attitude and behavior will determine what activities we can do in class. I want this year to be educational, memorable, and fun.

CLASSROOM RULES

1. All electronic devices must be turned off and put away during instructional time.
    - Absolutely NO cell phone calls or texting during class.
    - NO ear buds or AirPods in ears or visibly exposed during instruction.
    - Mr. Lastowski will inform the class of opportunities for the acceptable use of technology during instruction and lab activities.
2. Keep your desk clear of backpacks and personal items (**including cell phones**).
3. Only one student is allowed to the leave the class at a time (if instruction allows). Bathroom / water fountain breaks are not allowed during the first and last ten minutes of class (10/10 rule).
4. Practice personal and science lab safety at all times. Use common sense!

SUPPLY LIST

1 ½ Inch Binder • Loose Leaf Paper • Dividers (3) • Folder

Pens (blue or black) • #2 Pencils • Colored Pencils • Flash Drive

CLASSROOM SAFETY CONSIDERATIONS WITH RESPECT TO COVID-19

1. Wear your mask unless instructed otherwise.
2. Practice personal and science lab safety at all times.
3. Soap is available at all classroom sinks for thorough hand washing.
4. Hand sanitizer is available in the front of the room.

VOLUSIA LIVE – SPECIAL CONSIDERATIONS

1. **Be On Time** - Click on the link in your Outlook calendar at least a minute before class begins. Wait in the Teams lobby until Mr. Lastowski admits you to class. Please remember to be patient with this process.
2. **Use a Quiet Place to Work** - Check your surroundings and limit distractions.
3. **Be Prepared** - Make sure your computer is charged, your headphones are accessible, and your camera is on.
4. **Presentation** - Dress appropriately with your camera focused on you.
5. **Mute Your Microphone** - Your microphone should always be muted unless you are asking Mr. Lastowski a question during a designated time for Q&A.
6. **Participation** - Be Focused, Be Attentive, and Be Engaged
7. **Chat Responsibly** - Raise your "virtual hand" in Teams. Only type appropriate questions in the chat that are related to the lesson. Always use appropriate language.
8. **Communication** - Speak clearly, stay on topic, and look directly into the camera when you are speaking.
9. **Be Respectful** - Strive to be kind and considerate in all of your interactions.