**Lesson Plan for Week 1: Feb 02nd-06th** **Grade: 12** **Course / Code: Biology_SB14U** **Teacher: Farha Fairoze**

| | Monday | Tuesday | Thursday |
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| **Unit/ Lesson Big Ideas** | **Unit B: Biochemistry** | | |
| **Overall Expectations** | **B1**. analyse technological applications of enzymes in some industrial processes, and evaluate technological advances in the field of cellular biology;<br><br>**B2.** investigate the chemical structures, functions, and chemical properties of biological molecules involved in some common cellular processes and biochemical reactions;<br><br>**B3**. demonstrate an understanding of the structures and functions of biological molecules, and the biochemical reactions required to maintain normal cellular function. | | |
| **Specific Expectations** | **B2.1** use appropriate terminology related to biochemistry, including, but not limited to: active and passive transport, covalent and ionic bond, allosteric site, substrate, substrate-enzyme complex, and inhibition [C]<br><br>**B3.5** identify and describe the four main types of biochemical reactions (oxidation-reduction [redox], hydrolysis, condensation, and neutralization)<br><br>**B3.2** describe the structure of important biochemical compounds, including carbohydrates, proteins, lipids, and nucleic acids, and explain their function within cells<br><br>**B2.3** construct and draw three-dimensional molecular models of important biochemical compounds, including carbohydrates, proteins, lipids, and nucleic acids [PR, C] | | |
| **Learning Goals** | Students are able to understand and explain and draw the structures of the concepts of:<br>- Different bonds,<br>- The four types of chemical reactions<br>- Biologically important molecules | | |
| **Success Criteria** | -Atoms and elements (Subatomic particles, Radioactive isotopes, Ionic and covalent bonds, electronegativity and its effects)<br>- Biochemical reactions (Condensation, hydrolysis, Neutralization, Oxidation and reduction)<br>- Macromolecules<br>- Structure, function and formation of carbohydrates, lipids | | |
| **Instructional Strategies** | Explanation using diagrams and videos | | |
| **Assessment & Evaluation** | Knowledge and Understanding<br>Communication | | |
| **Homework / Class Work** | Text book page 18, Question 12 & 13 | | |

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