



## **ELECTRIFYING BIOCHEMISTRY SYLLABUS**

**Course Instructor:** Nashara Moreau ([S15651-teachers@esp.mit.edu](mailto:S15651-teachers@esp.mit.edu))

*Electrifying Biochemistry* is a **fun and academically rigorous virtual course** that is designed to incorporate the elements of Biology and Chemistry and cover the processes that occur within multicellular organisms with direct examples related to our day-to-day functions. This course is designed as strong preparation for students who are interested in the medical field and/or the scientific field. From this course, students will have a better understanding of what the field of Biochemistry entails but it is not sufficient to understand the fine details of that of Biochemistry. Students who are interested in Biochemistry should consider enrolling in Introductory Biology and Introductory Chemistry courses to obtain a deeper understanding of Biology and Chemistry.

This class is designated for students in **grades 8-11**. **This course welcomes students from all academic backgrounds.**

**Class times:** Class will be every Sunday for six Sundays beginning on **July 9, 2023** from 1:00pm to 2:00pm.

**Lecture Slides:** Files of PowerPoint images that are to be used during lecture will be sent out via email to all of the students registered for the course. The files for each week will be **sent out 1-3 days** before that *upcoming Sunday's lecture*.

## *Electrifying Biochemistry Course Schedule Summer 2023*

<b>Dates</b>	<b>Topic</b>
<b>07-09*</b>	Class Introductions; Introduction to Biochemistry; Introduction to Human Anatomy, Food and Medications.
<b>07-16*</b>	Breaking into General Chemistry, Molecular Biology, Microbiology, Genetics, Biochemistry, Toxicology.
<b>07-23</b>	Well-fed versus Starvation. Understanding the physiological effects of the decisions we make regarding food consumption.
<b>07-30</b>	Expelling waste in the body; Weight gain, Weight loss.
<b>08-06</b>	Medications (The Big Pharma). The importance of understanding the “fine print” on medications.
<b>08-13</b>	Why we age (Telomeres – Biochemistry/Biology), Conclusion of the course.

\* - The two classes may be combined into one class depending on time.