**MODULE 1 – Week 1- Immunology 101: Fundamentals**

**Day 1; Topic: *Exploring the Immune System: Defense Mechanisms, Disease, and Vaccination***

**Activities**:

* Self-Paced Learning:
  + Students will independently complete the self-paced module titled "Exploring the Immune System: Defense Mechanisms, Disease, and Vaccination."
  + The module includes watching the following videos:
    1. *What is the Immune System?* <https://www.youtube.com/watch?v=lXfEK8G8CUI>
    2. *You Are Immune Against Every Possible Disease*

<https://www.youtube.com/watch?v=LmpuerlbJu0>

* + 1. *What Actually Happens When You Are Sick?*[**https://www.youtube.com/watch?v=M-K7mxdN62M**](https://www.youtube.com/watch?v=M-K7mxdN62M)
    2. *The immune system explained – bacterial infection*  
       https://www.youtube.com/watch?v=zQGOcOUBi6s
    3. *The Side Effects of Vaccines - How High is the Risk?*

https://www.youtube.com/watch?v=zBkVCpbNnkU

* + 1. *Your Tattoo is Inside Your Immune System. Literally*https://www.youtube.com/watch?v=nGggU-Cxhv0
  + Students are encouraged to take notes and reflect on the material as they progress through the videos.
  + Reading recommendation: IMMUNE <https://www.penguinrandomhouse.com/books/669586/immune-by-philipp-dettmer/>

**Learning Objectives:**

* Understand the basic functions and components of the immune system.
* Explore how the immune system defends against diseases.
* Gain insight into the body's response when sick.
* Learn about the risks associated with vaccines.
* Discover how tattoos interact with the immune system.

**Expected Outcome:**

* Students will have a foundational understanding of the immune system and related topics.

**Day 2; Topic: *Reflection and Knowledge Check***

**Activities:**

* Anonymous Question Submission:
  + After completing the self-paced module, students will submit anonymous questions about the immune system using an online form (a link will be provided online).
  + These questions should reflect their understanding of the material and any areas where they seek further clarification or exploration.
* Voting on Questions (through Slido):
  + Students will then use an online service to view the questions submitted by their peers and vote on (upvote) the questions they find most relevant or interesting.
  + The most upvoted questions will be prioritized for discussion in the upcoming class session.
* Class Discussion:
  + During the class discussion, the top-voted questions will be addressed in detail.
  + Students will also have the opportunity to answer each other’s questions, promoting peer-to-peer learning and reinforcing key concepts.
  + The instructor will guide the discussion, ensuring that all critical topics are thoroughly covered.

**Learning Objectives:**

* Assess students’ understanding of the immune system through their questions.
* Encourage collaborative learning by having students engage with and evaluate each other’s inquiries.
* Clarify any misconceptions and deepen understanding through guided discussion based on the most relevant student-generated questions.

**Expected Outcome:**

* All students will be aligned in their understanding of the core concepts covered in the module, setting a strong foundation for more advanced topics in immunology.