



**ANATOMY AND PHYSIOLOGY (N3)**  
First Semester, Academic Year 2023-2024

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**LYMPHATIC SYSTEM AND IMMUNITY**  
STUDY GUIDE

**LEARNING OUTCOMES**

After studying this module, you should be able to:

- Explain the normal structures and related physiologic processes of the lymphatic system.
- Explain the relationship between the lymphatic system and immunity.
- Describe the normal physiologic process involved in specific and non-specific immune defenses.
- Differentiate between active and passive immunity.

**PRE-DISCUSSION ACTIVITY:**  
**(ASYNCHRONOUS)**

1. Read about the Lymphatic System and Immunity and make your own notes. Read Chapter 22 of Principles of Anatomy & Physiology book by Tortora, G., & Derrickson, B. pp 808-846.
2. Below is the outline of the lecture for reference.  
Lymphatic System and Immunity
  - A. Lymphatic Organs and Tissues
  - B. Lymphatic Vessel and Lymph Circulation
  - C. Concept of Immunity
    - C.1 Innate Immunity



- C.2 Adaptive Immunity
  - C.3 Cell-Mediated Immunity
  - C.4 Antibody-Mediated Immunity
  - D. Self-recognition and Self-tolerance
  - E. Stress and Immunity
3. After you have read about the topic, download and read the handouts provided and watch the following pre-recorded lecture. This will be posted in the course site.

### **ASYNCHRONOUS ACTIVITIES**

#### *Lecture:*

#### Activity 1: Topic Exercises (Short answers only)

1. Briefly describe the process of inflammation in an area that has been traumatized.
2. Choose one type of Immunity (Innate and Humoral) and explain how its mechanism protects our body.

#### Activity 2: Reflecting on the lesson.

Choose one concept in our lesson today, give a brief explanation about the concept and cite how you would apply this learning in your everyday life.

#### Activity 3:

Once you have read and viewed the learning materials about the topic, answer the practice and graded quizzes LMS.

#### *Additional Resources:*

Watch these additional videos for further explanation of the function of the immune system:

- <https://www.youtube.com/watch?v=cCPyWFK0IKs&t=144s>
- <https://www.youtube.com/watch?v=lxC-3MpIMUo>
- Antigen Processing and Presenting (access in the VLE)
- T-cell Activation and differentiation (access in the VLE)

#### *Laboratory*

1. Download and answer Laboratory Worksheet 14 on Lymphatic System.
2. Submit the completed worksheet in the submission bin found in the VLE.

#### References:

- Tortora, G., & Derrickson, B. (2014). *Principles of Anatomy & Physiology*. 14th ed. Hoboken, NJ: John Wiley & Sons, Inc.
- J. Gordon Betts, Young, K. A., Wise, J. A., Johnson, E., Poe, B., Kruse, D. H., Korol, Oksana, Johnson, J. E., Womble, Mark, & DeSaix, P. (2013, April 25). *Anatomy and Physiology*. <https://openstax.org/books/anatomy-and-physiology/pages>