



University of the Philippines Manila  
The Health Sciences Center  
**COLLEGE OF NURSING**  
WHO Collaborating Center for Leadership in Nursing Development



**ANATOMY AND PHYSIOLOGY (N3)**  
First Semester, Academic Year 2022-2023

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**STUDY GUIDE**  
**ENDOCRINE SYSTEM**

*Introduction*

Hello Student Nurses!

Last week, you have learned the structures and the vital functions of the nervous system. In this topic, you will now discover the importance of the endocrine system as the one that exerts chemical (hormone) control over the body in conjunction with the nervous system in maintaining homeostasis of the body. These hormones are involved in fluid balance; metabolism, energy balance, growth, and development; contraction of smooth and cardiac muscle; glandular secretion; reproduction; and the establishment of circadian rhythms.

*Learning Outcomes*

1. Compare control of body functions by the nervous system and endocrine system.
2. Distinguish between exocrine and endocrine glands.
3. Describe the two general mechanisms of hormone action.
4. Describe the mechanism of control of hormone secretion.
5. Describe the location, histology, hormone, and function of endocrine glands.
6. Describe how the body responds to stress.
7. Describe the development of endocrine glands.

*Asynchronous activities:*

1. Read the following topics in Chapter 18 of Principles of Anatomy & Physiology by Tortora and Derrickson (2012):
  - A. Comparison of control by the nervous and endocrine systems
  - B. Endocrine Glands
  - C. Activity and Mechanisms of Hormone Action
  - D. Control of Hormone Secretion
  - E. Major Endocrine Organs
  - F. Stress Response

- G. Development Aspect of Endocrine System
2. Download the topic handouts and watch the recorded video on the VLE course site.
  3. Watch the following supplemental videos by Khan Academy to help you appreciate more and better understand the topic:
    - a. [Endocrine gland hormone overview](#)
    - b. [Types of hormones](#)
  4. Answer the 10-item post-test on the VLE course site.

*Synchronous activities:*

1. Attend the plenary session on October 14, 2022, from 11:00 AM to 12:00 NN. Zoom meeting link is posted on the course site.
2. Make sure to log in 15 minutes before the scheduled time.
3. Dress appropriately since you will be asked to open your camera for attendance.

**References:**

- Bradford, J., & Hopper, P. (2015). In *Understanding Medical Surgical Nursing, 5th ed* (pp. 871–886). F.A. Davis Company.
- Tortora, G., & Derrickson, B. (2012). *Principles of Anatomy and Physiology, 3rd ed* (pp. 680-727). John Wiley & Sons, Inc.