

# Anatomy and Physiology I

## Learning Guide: Integumentary System

**Overview** – The integumentary system is the first body system to be covered. In this module, you will use the foundation acquired through the first four modules to explore the integument's anatomy and some applications of the integument in homeostasis and health.

### Learning Objectives

- Identify the major regions and tissues that make up the integument
- Explain the function of each region and the role that various tissues have in the structure of the integument and in maintaining homeostasis.
- Describe the process of melanin production by melanocytes
- Explain the life cycle of anaerobic bacteria with emphasis on *Clostridium tetani*.
- Describe the importance of blood clotting and fever in controlling infection.
- Explain how a wound heals.

**Getting Started** – The importance of the first four modules becomes evident from the start of this module. At times, you may want to review specific histological and cytological topics, as several will have applications in this unit. Finally, a capstone discussion on wound healing will unite many issues discussed in one formal and essential process. As you work through the material, use the visual resources available to undergird your understanding.

**Exam** – The exam is a standard exam that will employ a variety of question types. There are a few issues that require particular attention:

- Identify the name and functions of all **structures** and layers of the integument.
- Identify the name and functions of all **tissues** in the integument.
- There is a guided essay on **wound healing**, 30 points.

You should have a solid visual understanding of the integument and be able to identify the various structures and functions in illustrations. Be prepared to equate the structure and function of the various tissues found in the integument. The guided essay on wound healing will be at the end of the exam.

**Final Point** – The topic of wound healing is critical to future clinical studies. Mastering this topic will provide rich dividends in future discussions.