Anatomy and Physiology I

Learning Guide: Histology

Overview – Histology is the last of the four foundational lectures before we approach the body's systems in the rest of A&P I and A&P II. As the body systems are made of organs, and the organs are made of tissues, the importance of our study of Histology is self-evident. The unit is divided into three parts.

- Part #1 will look at epithelia,
- Part #2 will focus on the connective tissues and cartilage
- Part #3 will consider membranes and glandular epithelia. (Nervous and Muscular Tissues will be dealt with separately in future modules).

Learning Objectives

- Identify the epithelia visually and provide for each the epithelial tissue's name, functions, and locations under consideration.
- Identify the connective tissues visually and provide the name, functions, and locations for each connective tissue under consideration.
- Identify the cartilages visually and provide the name, functions, and locations for each cartilage under consideration.
- Compare and contrast three gland types in terms of function and location.
- Interpret visual representations of serous and mucous membranes.

Getting Started – A visual approach to the material is essential to the mastery of Histology. As you consider the 15 tissues presented, first get an image, and then be able to identify it, and then provide locations and functions. There will be some important ancillary information for each tissue from time to time. This will be identified as we proceed. There is also an <u>Introductory Video</u> that provides valuable guidance on how to approach the laboratory content.

Several resources are available to foster a visual approach to the mastery of Histology.

- First, a <u>Laboratory Module</u> has many of the college's tissue specimens photographed.
- The <u>Image Bank</u> can also provide a wealth of visual support.
- Videos for both lecture and laboratory are available <u>Here</u>. In the laboratory videos, I will walk you through and explain many images in the laboratory module linked above.

• There are also quizzes (called "psudoquizes") to self-test your master of the content. It is best to do these once you feel confident in your grasp of the module. These quizzes are located in the Laboratory Module link above.

Exam – Assessment in Histology occurs in two ways.

- 1. **Lecture Exam** First, there is a typical lecture exam with a standard variety of questions. For names, functions, and locations, matching questions will be employed. The exam will also include some simple diagrams of the tissues. Lastly, know the handout on membranes very well! The illustrations therein may be on the exam.
- 2. **Histology Laboratory Practical** The Histology module will also have a laboratory component, and as such, it will be your first laboratory practical. During the laboratory exam, you will see many images from the <u>Laboratory Module</u>.

The lab practical is fill-in-the-blank. You will need to recognize the tissues and provide the names, functions, and locations of each.

Exam Dates – the dates for these exams can be seen on the Course Schedule.

Final Points – A visual approach to this module is essential to making your efforts effective and enjoyable, but it is crucial to start early. Also, as you approach the material, you are studying for two exams. To keep this in perspective, however, note that there are only 15 tissues. However, getting skilled in identifying histological specimens and working with them takes time.