**Lecture Learning Outcomes and Objectives**

**Week 11: DIGESTION AND NUTRITION**

*Given 2 hours of discussion and assigned reading on the subject, upon an examination and within 70% accuracy, the student should be able to:*

**Digestive Tracts**

1. Compare the digestive tracts of animals in terms of incomplete versus complete tracts, and adaptations to diet.
2. Describe the different digestive systems of vertebrates

**Human Digestive Tract**

1. Describe the anatomy of the human mouth, and contrast mechanical and chemical digestion in the mouth.
2. Describe the anatomy of the pharynx and changes that occur during swallowing.
3. Describe the anatomy of the esophagus and the process of peristalsis.
4. Describe the anatomy of the stomach and the function of gastric glands.
5. Describe the anatomy of the small intestine and its role in chemical digestion and absorption of nutrients.
6. Describe several functions of the pancreas and liver and two serious liver disorders.
7. Describe the structure and function of the large intestine and common issues associated with the large intestine.

**Digestive Enzymes**

1. Outline the usual steps for the digestion of starch, proteins and lipids, and tell how the products of digestion are absorbed.

**Nutrition**

1. Compare the benefits and drawbacks of carbohydrates, lipids, and proteins in the diet.
2. Discuss and correlate diet and diabetes type 2 and cardiovascular disease.
3. Explain what essential nutrients are
4. In general, discuss the need for minerals and vitamins in the diet.
5. Understand the terms: alimentary canal, gastrovascular cavity, carnivore, herbivore, omnivore, monogastric, ruminant, chime, gizzard, lipase, peristalsis, rectum, salivary amylase, sphincter, villi, ingestion, absorption, essential nutrient, vitamin.