**Lecture Learning Outcomes and Objectives**

**Week 3: The Protists**

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

**General Biology of Protists**

1. Summarize the endosymbiotic theory for the origin of the eukaryotic cell.
2. Contrast prokaryotic vs eukaryotic cells
3. Describe the general characteristics of protists.

**Diversity of Protists**

1. Provide the defining characteristics of each of the six eukaryotic supergroups, and list the protists assigned to them **or** 4 types of protists (based on mode of nutrition: phototrophs, heterotrophs by ingestion, heterotrophs by absorption, mixotrophs).
2. Distinguish between algae and protozoans.
3. Give examples of the ecological and economic significance of the different types of algae.
4. Identify the types that include algae.
5. Describe the structure of a paramecium, euglenid, amoeboid, and a trypanosome.
6. Enumerate the major diseases caused by protists, and name the causative agent of each.
7. Distinguish between plasmodial and cellular slime molds.
8. State the evolutionary relationship between the green algae and land plants.
9. State the evolutionary relationship between choanoflagellates and sponges (animals).
10. State the proposed evolutionary relationship between nucleariids and fungi.
11. Be able to use and define the following terminology: endosymbiosis, endosymbiotic theory, mixotroph, pseudopods, flagella, cilia, phagolysosome, plankton, phytoplankton, contractile vacuole, bioluminescence

---