

## **Biology 101H**

### **Reading, Writing and Laboratory Assignments**

There are six sections within the lecture outline of the Principles of Biology course (Biol. 101). They emphasize 6 major principles within the discipline of Biology. These include:

- 1 Biology as a discipline of science and science as a way of knowing
- 2 Cell Biology: nature of cells, how they function during growth and reproduction
- 3 Genetics: chromosomes, DNA and gene structure and function in heredity
- 4 Ecology: The nature of the environment, populations, communities & biomes
- 5 Metabolic processes: the flow of energy through living systems
- 6 Evolution and diversity among organisms

In the Biology Biol. 101H course, the unique features of the Honors curriculum are embedded in the laboratory portion of the class. The honors class has additional learning objectives and associated outcomes to address the honor students' more demanding needs.

These include reading, writing and laboratory exercises designed specifically for **honors students** (Biol. 101H enrollees). These exercises will address all six of these principles discussed in lectures during the laboratory portion of the class.

An additional textbook is required for 101H students. It is entitled "*Biology Write Now!*" by T.L. Taigen and J. Monninger, McGraw Hill Publishers, 104pp. This book has fourteen essays in the first 3 units of the book. The essays discuss various aspects of the principles emphasized in lectures. The essays act as a focus to stimulate students into further investigation and help them initiate writing an essay on that particular subject. Students will be assigned to read four of these essays and then write about those topics. Reading essays, discussing the topics and initiating a writing exercise will occur in the laboratory portion of class.

At other laboratory meetings, students will participate in laboratory experiments outlined in the lab manual that is attached. Approximately half of these exercises are common to the Biol. 101 curriculum. However, two of the lab exercises will be solely for the **honor students** (Biol. 101H enrollees) and are designed to foster experiential learning whereby students will make preliminary observations about a phenomenon by assembling a lab apparatus, collecting data and using this experience to design a more sophisticated experiment. Students will test their idea by collecting data, and finally preparing a formal report of the entire process. The traditional sections of a research paper are discussed in the *Biology Write Now* text and students will be expected to follow this format which is used by most scientists when reporting experimental data to their peers.