Course Prefix and Number:  BIO 206

Credits:  4

Course Title:  Cell Biology

Course Description:  Introduces the ultrastructure and functions of cells. Emphasizes cell metabolism, cell division, and control of gene expression. Prerequisite: One year of college biology and one year of college chemistry. Lecture 3 hours. Recitation and Laboratory 3 hours. Total 6 hours per week.

General Course Purpose:  This course covers the basic content and specific laboratory techniques of an introductory, college-level, cell biology class. The credits for this class can be used to satisfy the laboratory science requirements for the AS in Science degree.

Course Prerequisites and Co-requisites:
Prerequisite:  One year of college biology and one year of college chemistry.

Course Objectives:
Upon completing the course, the student will be able to
a. List and describe in detail the major components of the eukaryotic and prokaryotic cell;
b. List and describe the major metabolic pathways of cellular respiration and photosynthesis;
c. Explain membrane morphology and physiology;
d. Describe the Central Dogma; and
e. List and describe several techniques associated with recombinant DNA technologies.

Major Topics to Be Included:
a. Chemistry review
b. Cell structure and function
c. Membrane physiology
d. Chemistry of biological molecules
e. DNA, RNA, Protein physiology, and metabolism
f. Laboratory techniques common to cell biology

Effective Date of Course Content Summary:  February 16, 2009