Course Description

This is a 1 credit course that meets the requirement for the A.S. degree in biotechnology. This course consists of one hour of discussion per week based on reading assignments. Prerequisite- Completion of BSC 2010 with a grade of C or higher. This course is a series of discussions based on pertinent topics in the biological research with societal impact. The course covers a broad range of ethical issues that relate to the fields of biology and medicine.

Course Performance Standards

At the successful completion of the course the student should be able to:

1. Define and describe stem cells.
2. Identify sources for obtaining animal stem cells.
3. Describe the common steps in embryologic development of all mammals.
4. Define the terms genetically modified.
5. List a series of commonly sold food sources that are available as genetically modified foods.
6. List the genetic elements frequently used in producing genetically modified organisms.
7. Define the term gene therapy.
8. List several human diseases that may be treated with gene therapy.
9. Describe the process of whole animal cloning.
10. Differentiate between molecular cloning of DNA segments and cloning of animals.
11. Understand and explain various opposing views of the risks and benefits of cloning animals, specifically mammals.
12. Understand and explain various opposing views of the risks and benefits of gene replacement therapy.
13. Understand and explain the various opposing views of the risks and benefits of genetically modified food sources.
14. Understand and explain various opposing views of the risks and benefits of stem cell research.
15. Understand and explain various opposing views of the definition of life pertaining specifically to humans (Homo sapien).
16. Prepare a power point presentation addressing a current bioethical controversy. Present the opposing views. Argue in favor of one side of the controversy.