



Overview:

- Provides science and **non-science majors** an opportunity to learn about current issues in biotechnology that play a role in our society
- Fulfills a Natural Sciences GEP requirement
- Engages students in lecture and lab planning, designing, and executing molecular biotechnology experiments



Lecture Topics:

1. Introduction to biotechnology, fermentation and “tasty” biotechnology, introduction to molecular and cell biology
2. Proteins, enzymes, polymerase chain reaction and DNA sequencing
3. The Human Genome Project, bioremediation, biofuels
4. Genetically modified foods, stems cells, gene therapy
5. Pharmaceuticals, transgenic animals, cloning

Labs:

1. Biotechnology Boot Camp: cloning and expression of green fluorescent protein
2. Are you a night owl or an early bird?: examining genotypes and phenotypes
3. Who Dunit?: a crime scene analysis
4. Oil Spill Disaster: exploring bioremediation
5. Is your favorite food altered?: investigating genetically modified foods
6. Silencing genes on command: using RNA interference in tobacco plants