**Description:** This course provides students with an appreciation for living systems as they are applied to the biological science of food and fiber production, food processing and human health. Students develop competencies in plant growth production, animal growth production, biotechnology, and environmental sciences, among other subjects.

**Safety**
- Safety Posters
- How to read MSDS
- Location map of safety items

**Cells**
- Cell parts
- Onion cell staining lab
- Cell analogy collage
- Examining Cell structure of plant/animal cells lab
- Cellular respiration lab
- Moving molecules (Osmosis computer lab)
- Just passing through (Osmosis lab)

**Classification**
- Organize and identify (dichotomous key guide)
- Taxonomy lab
- Creature classification lab/activity

**Animal Science**
- Domestication of animals
- History of Animals
- Animal behavior and handling lab
- Behavior WebQuest

**Food Safety**
- Food journal activity
- Food bacteria lab
- From farm to fork activity
- Contaminated cupcakes lab
- Bacteria Poster activity

**DNA**
- Strawberry DNA Extraction Lab
- DNA model Construction
- Create a Family tree
- Compare and contrast DNA and RNA
Protein Synthesis

- Protein Synthesis with words lab
- Diagram labeling of transcription and translation activity

Ecology

- Food web/Food chain interactive activity
- Energy transfer activity
- Ecosystem exploration (Dioramas)

Evolution

- Pedigree exploration
- Methods of Evolution
- Survival of the Sneakiest activity
- Mapping history (fossil lab)

Biotech

- Exploration of GMO’s, rBST, Cloning, and agricultural technology (presentations)

Ag Issues

- Understanding animal value activity
- Animal welfare vs Animal rights debate
- Agricultural issues research and presentations

Plant Propagation

- Grafting, division, germination and layering (lab for each one)
  - Students will attempt to grow plants for each method

Integrated Pest Management

- Insect collection
- IMP research and presentation

Animal Systems

- External Anatomy activity
- Exploration of respiratory and circulatory anatomy
- Respiration lab
- Blood cell WebQuest
- Heart lab
- Mapping reactions (nerve/hormone lab)
- Digestion murals (different digestive systems)

Concrete

- Concrete mixing
- Concrete stepping stone