

Freshman Year

Graduation Year

Biol 102

Biol 105

Chem 107

Biol 209

Biol 303

Biol 309

Biol 313

Introduction to Biology-Research Goals
Determine optimal growth conditions for HeLa cells
Identify the effects of various ligands on HeLa cells immune response

Botany-Research Goals
Elicitation approaches for production of Super Crops: Elicitation of carotene levels in carrots and lycopene in tomatoes towards the production of Super crops.

General Chemistry 1 - Research Goals
Characterization o antioxidant properties of fruit
Comparison of various methods of testing antioxidant properties of fruit

General Genetics - Research Goals
Identify genes that contribute to/cause aging in skeletal muscle
Identify geneticions (SNPs) in ethnic groups in the skeletal muscle genome/transcriptome that may affect the onset or progression of age-related changes

Molecular Biology - Research Goals
Collect and study biodiversity and genetic relationships of species
Compare the effectiveness of different DNA fingerprinting techniques in distinguishing between species accessions

Microbiology 1 - Research Goals
Identify and characterize the percentage of antibiotic resistant microbes in soil samples and compare prevalence between agricultural and non-agricultural sites in and around Bowie, MD over time. Identify and characterize antibiotic resistance patterns based on drug target mechanism.

Cell Biology - Research Goals
Identify cellular signaling pathways/elements involved in responses to hypoxia
Identify cellular hypoxia signaling pathways/elements modified by Creatine supplements.

**CROSS CURRICULAR COURSE-BASED UNDERGRADUATE RESEARCH EXPERIENCE (CURE)
NATURAL SCIENCE DEPARTMENT,
BOWIE STATE UNIVERSITY**