AGRICULTURAL AND HEALTH BIOTECHNOLOGY MINOR

This interdepartmental minor provides students with an in-depth, multidisciplinary education in the field of biotechnology. The minor will prepare students for advanced studies and career development in applied molecular biology, as well as agricultural and health biotechnology.

Requirements

Students must complete a minimum of 14 credits of the courses listed below. This includes one core course (Group A), a minimum of three laboratory credits (Group B), and six credits of discipline-based fundamental courses (Group C).

Course	Title	Credits
Group A: Core Courses		
ANSC 3323	Animal Embryology and Biotechnology	3
or SPSS 3230	Biotechnology - Science, Application, Impact, Perception	
Group B: Laboratory Modules		
Select a minimum of three credits from the following: [1]		3
PATH 3501	Diagnostic Techniques for the Biomedical Sciences	
PATH 4000	Bioinformatics in Molecular Epidemiology of Infectious Diseases	
SPSS 3210	Molecular Laboratory Technology	
SPSS 3255	Modern and Traditional Plant Breeding Techniques	
Group C: Discipline-Based Fundamental Courses		
Select six credits from the following:		6
AH 3005	Biostatistics for Health Professions	
AH 3060	Healthcare Genetics and Genomics	
ANSC 3272	Laboratory Animal Science	
ANSC 3318	Probiotics and Prebiotics	
ANSC 3641	Animal Food Products: Dairy Technology	
ANSC 5619	Signaling Pathways	
DGS 3226	Current Genetic Research	
KINS 4500	Exercise Physiology	
KINS 4510	Advanced Topics in Health and Sport Performance	
KINS 6094	Seminar	
KINS 6520	Thermal Physiology	
NUSC 3233	Food Composition and Preparation	
NUSC 4236	Nutritional Biochemistry and Metabolism	
NUSC 4250	Nutrition for Exercise and Sport	
NUSC 4260	Dietary Supplements and Functional Foods	
PATH 3700	Emerging Infectious Diseases and Pandemics	
PATH 4203	Principles of Antibacterial Development	
PATH 5202	Viral Pathogenesis	
PATH 5401	Immunobiology	
PATH 5503	Molecular Approaches to Disease Diagnosis and Prevention	
PATH 5632	Vaccines: Mechanisms of Immune Protection	
SPSS 3210	Molecular Laboratory Technology	
SPSS 3245	Plant Breeding and Biotechnology	
SPSS 3255	Modern and Traditional Plant Breeding Techniques	
SPSS 4210	Plant Physiology: How Plants Work	
Total Credits		**12**

[1] Independent study and internship can be taken using the department's course numbers. The topic of these studies must be laboratory-based, focused on some aspect of agricultural or health biotechnology and be approved by the departmental minor advisor (a syllabus must be submitted). No more than three-credits can be used from this group. The same course cannot count toward more than one group.

Students must earn a grade of C (grade point 2.0) or higher in each course above or S for an S/U course. Students must earn a combined GPA of 2.5 or higher for all letter-grade courses above.

The minor is offered by the College of Agriculture, Health and Natural Resources.