



Program of Study: Horticulture and Animal Science (Diversified Agriculture)

This Program of Study may serve as a graduation guide for the next four plus years, along with other career planning and educational materials. Courses listed in this model may include recommended coursework and should be individualized to students' educational and career goals. Each graduation plan needs to meet minimum high school graduation requirements. Dual Enrollment courses can be high school academic and/or career technical education courses.

Secondary: Horticulture and Animal Science					Entrance or Exit Point	Postsecondary:			
Course/Grade	9	10	11	12		TCC	Diploma or AAS	Bachelor of Science	
English 4 credits	9 th Grade Lit	10 th Grade Lit	American Lit	British Lit		Entrance or Exit Point	PPS1 Nursery/Greenhouse Technician <ul style="list-style-type: none"> HORT 1000 Horticulture Science HORT 1010 Woody Ornamental Plant Identification HORT 1020 Herbaceous Plant Identification HORT 1030 Greenhouse Management HORT 1050 Nursery Production Management 	The following diploma program is available: <ul style="list-style-type: none"> Horticulture (EH12) The following degree program is available: <ul style="list-style-type: none"> Veterinary Technology, AAS (VT23) 	The University System of Georgia offers students' higher education options at 30 institutions throughout the state, providing a wide range of academic programming including certificates and associate, baccalaureate, masters, doctoral and professional degrees.
Math 4 credits	Algebra I	Geometry	Algebra II	Fourth Math Selection					
Science 4 credits	Environmental Science	Physical Science	Biology	Fourth Science Selection					
Social Studies 3 credits	World History	US History	Economics and Government						
PE 1 credit	Health and Personal Fitness		Consult your counselor for course progression. Course progression on this sheet is based on general guidelines.						
Pathway 3 credits	Basic Agriculture	General Horticulture & Plant Science	Animal Science and Biotechnology	See CTAE Related Electives Below					
Electives	World Language Sequence French or Spanish <i>2 Units Required for admission to Georgia University System Colleges</i>		Fine Arts Visual Arts Band Chorus Drama	Advanced Placement Courses Dual Enrollment Courses					
	Related CTAE Electives Occupational Safety Wildlife Management		Work-Based Learning Internship Cooperative Education Youth Apprenticeship						

NOTE: Students have many options to ENTER and EXIT from their academic studies into the workforce. When a student graduates from high school, they are eligible to choose one of many ENTRANCE POINT options: 1. Enroll in either a 2- or 4-year post-secondary program; 2. Enroll in an apprenticeship program or the military; or 3. Enter the workforce using technical skills learned in high school. When a student finishes a 2- or 4-year degree program, they may choose to EXIT and 1. Enroll in an apprenticeship program or the military; 2. Enroll in a professional university degree program; or 3. Enter the workforce using technical skills learned.

Horticulture and Animal Science Career Pathway Completers - Industry Credentialing for High School Students

Upon completion of sequenced courses in a Horticulture and Animal Science Career Pathway, students are eligible to complete the Industry-Recognized student credential for fulfillment of the End of Pathway Assessment. Secondary students completing the Horticulture and Animal Science pathway will be able to sit for the National Industry Credentialed assessment offered on-line from Precision. Once mastery is reached, students will receive recognition for completion and use this credential in conjunction with their job or continuing training.

Sample High Demand Careers in Georgia				
Occupation Specialties	Level of Education Needed	Georgia Average Salary	Annual Average Openings	2014-2024 Employment Outlook
Nursery and Greenhouse Managers	Bachelor's Degree	\$69,300	450	High Skill, In Demand
Soil and Plant Scientists	Bachelor's Degree	\$68,900	10	High Skill
Animal Scientists	Advanced Degree	\$61,700	1	High Skill

GDOL Labor Market Explorer

Go to GAFutures at www.gafutures.org for more information about your education and career planning, including valuable financial information (grants and scholarships including HOPE Program, grants and loans, FAFSA, and CSS forms).				<p style="text-align: center;">Horticulture and Animal Science Pathway Description</p> <p>Animal scientists conduct research to develop better ways to produce and process meat, poultry, eggs, and milk. Much of the research focuses on the health and breeding of livestock, but domestic animals, such as cats and dogs, are also a research concern. Animal scientists are experts in genetics, nutrition, reproduction, and animal production management. Developing new characteristics to introduce into animals (such as chickens that lay more eggs) and reducing the cost of raising animals and processing animal products are other goals of workers in this pathway.</p> <p>Employment opportunities in the horticulture field should be good, with more job openings than job seekers. Employment is expected to increase in response to the increasing demand for both products and services by commercial producers, landscape contractors, turf managers and the general public. New avenues of research in biotechnology to develop plant and food crops that require less fertilizer, fewer pesticides and herbicides, and less water will also increase the demand for careers in plant science and horticulture. Because most jobs in this field are research-based, a bachelor's degree in animal or agriculture science is required. A doctoral degree (Ph.D.) is necessary for leading research projects or teaching on the university level.</p>
Career Enhancement Opportunities	Career-Related Education Activities	Postsecondary Options:	Earning Postsecondary Credits While in High School	
	<ul style="list-style-type: none"> Career Awareness Career Exploration Instructional Related Connecting Work-Based Learning 	<ul style="list-style-type: none"> 4-Year Universities/Colleges 2-Year Colleges Technical Colleges State Registered Apprenticeships Special Purpose Schools On-the-Job Training Military 	<p>A vital way to get ahead and realize you can pass college courses is by earning postsecondary credits as a high school student. Georgia offers a dual credit program titled Dual Enrollment. You need to talk with your parents, school counselor, or advisor about the proper courses to take each year in high school and dual credit.</p> <p>Students completing the course work in this Plan, will have earned/completed an Industry Credential, Technical Certificate of Credit (TCC), Associates of Applied Science Degree, and/or Bachelor's Degree.</p>	
	Postsecondary Transition			
	<ul style="list-style-type: none"> Students who will continue their education in a Program of Study at one of the University System of Georgia institutions should prepare to take the ACT or SAT for admissions. Tests for admissions may vary from institution to institution. Contact the selected institution for specific testing information. Additional admissions information can be found at Staying On Course. (https://www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf) Students who will continue their education in a Program of Study at one of the Technical College System of Georgia institutions should prepare to complete a placement exam. Students who will continue their education and training in the US Military should take the ASVAB assessment. Students should utilize electronic college and career databases to select the most appropriate postsecondary opportunities to match their selected career field, including registered apprenticeships. Georgia's dual-credit programs have been combined into one program entitled Dual Enrollment, in which high school students may earn their high school course credits while taking college courses. 			
Related Pathway Occupations		Other Related Occupations		
<ul style="list-style-type: none"> Nursery and Greenhouse Managers Soil and Plant Scientists Animal Scientists Animal Breeders Nonfarm Animal Caretakers Nursery Workers Animal Trainers 		<ul style="list-style-type: none"> First-Line Supervisors of Animal Husbandry and Animal Care Workers Career/Technical Education Teachers <p style="text-align: right;">ONET Online</p>		

Student Organization: FFA	Programs of Study Developed in Partnership: the Georgia Department of Education, the Technical College System of Georgia, and the University System of Georgia. #CTAEDelivers
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