



## Program of Study: Horticulture and Forest 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 Forest Science					Entrance or Exit Point	Postsecondary:			
Course/Grade	9	10	11	12		TCC	Diploma or AAS	Bachelor of Science	
<b>English</b> 4 credits	9 <sup>th</sup> Grade Lit	10 <sup>th</sup> Grade Lit	American Lit	British Lit		Entrance or Exit Point	<b>Turgrass Maintenance Technician</b> <ul style="list-style-type: none"> <li>HORT 1080 Pest Management</li> <li>HORT 1310 Irrigation &amp; Water Management</li> <li>HORT 1330 Turfgrass Management</li> <li>HORT 1410 Soils</li> </ul>	The following diploma program is available: <ul style="list-style-type: none"> <li>Land, Forest, Wildlife Management (LF12)</li> </ul> The following degree program is available: <ul style="list-style-type: none"> <li>Land, Forest, Wildlife Management (LF23)</li> </ul>	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.
<b>Math</b> 4 credits	Algebra I	Geometry	Algebra II	Fourth Math Selection					
<b>Science</b> 4 credits	Environmental Science	Physical Science	Biology	Fourth Science Selection					
<b>Social Studies</b> 3 credits	World History	US History	Economics and Government						
<b>PE</b> 1 credit	Health and Personal Fitness		Consult your counselor for course progression. Course progression on this sheet is based on general guidelines.						
<b>Pathway</b> 3 credits	<b>Basic Agriculture</b>	<b>General Horticulture &amp; Plant Science</b>	<b>Forest Science</b>	See CTAE Related Electives Below					
<b>Electives</b>	<b>World Language Sequence</b> French or Spanish <i>2 Units Required for admission to Georgia University System Colleges</i>		<b>Fine Arts</b> Visual Arts Band Chorus Drama	Advanced Placement Courses  Dual Enrollment Courses					
	<b>Related CTAE Electives</b> Occupational Safety Wildlife Management Nursery and Landscape		<b>Work-Based Learning</b> 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 Forest Science Career Pathway Completers - Industry Credentialing for High School Students

Upon completion of sequenced courses in a Horticulture and Forest 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 Forest 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
Foresters	Bachelor's Degree	\$53,200	4	High Skill

GDOL Labor Market Explorer

Go to GAFutures at <a href="http://www.gafutures.org">www.gafutures.org</a> 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;"><b>Horticulture and Forest Science Pathway Description</b></p> <p>A career in horticulture and forest science offers a variety of job opportunities in the fields of education, research, golf and sports turf, landscape design, parks and gardens, public service, production management, and sales and marketing. Some jobs available include landscape designer, greenhouse manager, golf course superintendent, plant breeder, florist, agricultural chemical researcher and garden center owner.</p> <p>Educational requirements in this field vary by job. Two- and four-year programs are available in this area. Advanced degrees may be necessary for some research-related jobs.</p> <p>Those who are interested in this field should be able to carry out projects and work independently, have a commitment to quality and customer service, have an appreciation of our natural environment and have good communication skills, both written and verbal. Employment opportunities in this field should be good, with more job openings than job seekers.</p> <p>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.</p>
<b>Career Enhancement Opportunities</b>	<b>Career-Related Education Activities</b>	<b>Postsecondary Options:</b>	<b>Earning Postsecondary Credits While in High School</b>	
	<ul style="list-style-type: none"> <li>• Career Awareness</li> <li>• Career Exploration</li> <li>• Instructional Related</li> <li>• Connecting</li> <li>• Work-Based Learning</li> </ul>	<ul style="list-style-type: none"> <li>• 4-Year Universities/Colleges</li> <li>• 2-Year Colleges</li> <li>• Technical Colleges</li> <li>• State Registered Apprenticeships</li> <li>• Special Purpose Schools</li> <li>• On-the-Job Training</li> <li>• Military</li> </ul>	<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>	
<p><b>Postsecondary Transition</b></p> <ul style="list-style-type: none"> <li>• 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. (<a href="https://www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf">https://www.usg.edu/assets/student_affairs/documents/Staying_on_Course.pdf</a>)</li> <li>• 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.</li> <li>• Students who will continue their education and training in the US Military should take the ASVAB assessment.</li> <li>• Students should utilize electronic college and career databases to select the most appropriate postsecondary opportunities to match their selected career field, including registered apprenticeships.</li> <li>• 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.</li> </ul>				
<b>Related Pathway Occupations</b>		<b>Other Related Occupations</b>		
<ul style="list-style-type: none"> <li>• Nursery and Greenhouse Manager</li> <li>• Soil and Plant Scientists</li> <li>• Foresters</li> <li>• Forest and Conservation Technicians</li> <li>• Zoologists and Wildlife Biologists</li> <li>• Environmental Science and Protection Technicians</li> <li>• Biological Science Teachers</li> </ul>		<ul style="list-style-type: none"> <li>• Forest Fire Fighting and Prevention Supervisors</li> <li>• Nursery Workers</li> </ul> <p style="text-align: right;">ONET Online</p>		

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