

PROGRAM OF STUDY: Agricultural Mechanics System



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:					POSTSECONDARY:			
COURSE/ GRADE	NINTH	TENTH	ELEVENTH	TWELFTH	Entrance/Exit Point	TCC	DIPLOMA OR AAS	BACHELOR OF SCIENCE	
ENGLISH	9 th grade Lit/ Composition	10 th grade Lit/ Composition	American Lit/ Composition	World Lit/ Composition / British Lit		Entrance/Exit Point	Find the campus for the TCC options	Find the campus for the Diploma, Degree options	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. https://apps.ds.usg.edu/ords/f?p=118:1:0
MATHEMATICS	Coordinate Algebra / Algebra I	Analytic Geometry / Geometry	Advanced Algebra / Algebra II	Pre-calculus					
SCIENCE	Physical Science	Biology	Chemistry	Physics					
SOCIAL STUDIES	World History	Psychology	US History	Government (½ unit) Economics (½ unit)					
PATHWAY COMPLETER	Basic Agricultural Science	Agricultural Mechanics I	Agricultural Mechanics II	Another course in focus area, Work-Based Learning, or Youth Apprenticeship					
Industry Recognized Credential (Pathway Completer)		Visit the End of Pathway Assessment Page (see note below)							
Required/ Selective Electives	Health & Personal Fitness (can be taken in grades 9-12)	Forest Science	Agribusiness Management and Leadership	General Horticulture & Plant Science					
	Modern Language/Latin 2 units required for admissions to Georgia University System Colleges/Universities For a listing of Modern Language/Latin courses offered at your high school, please contact your advisor, counselor, or curriculum handbook.		Other Electives For a listing of other elective courses offered at your high school, please check with your advisor, counselor, or curriculum handbook.						

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.

Agricultural Mechanics System Career Pathway Completers - Industry Credentialing for High School Students

Upon completion of sequenced courses in the Agricultural Mechanics System Pathway, students are eligible to complete the Industry-Recognized student credential for fulfillment of the End of Pathway Assessment. Secondary students completing the Agricultural Mechanics System pathway will be able to sit for the National Industry Credentialed assessment offered on-line from NOCTI and Precision. Once mastery is reached, students will receive recognition for completion and use this credential in conjunction with their job or continuing training. For specific assessment information, refer to: <http://bit.ly/AgricultureEOPA>.

Sample In Demand Careers in Georgia

Occupation Specialties	Level of Education Needed	Georgia Average Salary	Annual Average Openings in Georgia	2014 – 2024 Employment Outlook
Agricultural Engineers	Bachelor's Degree	\$74,000	5	In Demand, High Wage
Welders, Cutters, and Welder Fitters	Postsecondary Certificate	\$36,175	371	In Demand, High Skill
Agricultural Technicians	Bachelor's Degree	\$37,305	43	In Demand, High Skill
Agricultural Inspectors	High School Degree	\$39,051	124	In Demand

[Data link here.](#)

Go to [GAfutures at www.gafutures.org](http://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).

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 <ul style="list-style-type: none"> Work-Based Learning Employability Skill Dev. Cooperative Education Internship Youth Apprenticeship Clinicals 	<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 	<ul style="list-style-type: none"> Dual Enrollment Program Earn postsecondary credit while in high school You can complete <ul style="list-style-type: none"> Industry Credential Technical Certificate of Credit (TCC) Associates of Applied Science Degree Bachelor's Degree Who can help? <ul style="list-style-type: none"> Parents School Counselor Advisor
Postsecondary Transition <ul style="list-style-type: none"> University System of Georgia Institutions: Admissions Testing <ul style="list-style-type: none"> ACT or SAT For More Information: <ul style="list-style-type: none"> Contact the institution of your choice OR Technical College System of Georgia <ul style="list-style-type: none"> Placement Exam United States Military <ul style="list-style-type: none"> ASVAB Assessment Use BRIDGE Law platform to inform decisions on postsecondary opportunities Dual Enrollment <ul style="list-style-type: none"> Earning high school course credits while taking college courses 			
Related Pathway Occupations		Other Related Occupations	
<ul style="list-style-type: none"> Agricultural Inspectors Postsecondary Teachers Aquaculture Managers Chemical Technicians 		<ul style="list-style-type: none"> Agricultural Science Agricultural Technicians Buyers & Purchasing Agents Farm & Ranch Managers Food Cooking Machine Operators Graders & Sorters Slaughters & Meat Packers 	
*ONET Online			

Agricultural Mechanics Focus Area Pathway Description

Because workers in the Agricultural Mechanics pathway are responsible for the efficient operation of farm machinery, opportunities in the farm equipment industry will grow as farms merge and grow larger. Agricultural and farm equipment mechanics are responsible for the maintenance, repair, and installation of machines that increase the efficiency of farming activities, such as planting, harvesting, and irrigating crops. Agricultural mechanics also service and repair smaller lawn and garden equipment operated by suburban homeowners.

Important skills for this pathway include the ability to maintain and repair farm machines, such as large tractors or combines. Dairy equipment repairers maintain, and repair milking machines and other equipment used by dairy farmers. Modern farm equipment utilizes computers, electronics, and hydraulics, which means that workers need to continually update their skills. In fact, what was once a general repairer's job has become a more specialized technical field in the farm industry. As a result, many farmers rely on farm equipment dealers to maintain and repair their machinery because the equipment is more complex than in the past. Another occupation in this pathway is agricultural engineer—someone who designs equipment and technology to meet farmer needs.

Some agricultural mechanics receive formal training in professional/technical schools and two-year colleges, where they learn the basics of diesel engines, transmissions, and hydraulics. Other mechanics learn their skills on the job, receiving training from more experienced mechanics and from training sessions conducted by heavy equipment manufacturers. Competition for workers is keen because of the scarcity of qualified people to fill agricultural mechanic positions.