



Dr. John D. Barge, State School Superintendent
"Making Education Work for All Georgians"

Student Plan of Study – Plant Systems

Name _____ Date _____ School _____

Parent/Guardian Signature _____ Date _____ Advisor/Counselor Signature _____ Date _____

Current Area of Interest: - Agriculture, Food & Natural Resources/Plant Systems - This PLAN OF STUDY should serve as a guide for the next four years. Courses listed in this plan are only recommended coursework and should be individualized to meet each student's educational and career goals. All plans will meet minimum high school graduation requirements. Applicants to University System of Georgia and the Technical College System of Georgia institutions should be advised that meeting minimum requirements will not guarantee admission. Postsecondary institutions may set additional requirements.

Agriculture, Food & Natural Resources

Grade Level	I. English/Language Arts Total 4 credits	II. Math Total 4 credits	III. Science Total 4 credits	IV. Social Studies Total 3 credits	V. Health/Personal Fitness Total 1 credit	VII. Possible electives in additional pathways (students should check the local course description catalog for these and other electives) Total 4 credits
9	9 th Literature & Composition or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	*1 CCGPS Cord Alg 2 CCGPS Analytic Geom 3 CCGPS Accel Cord Alg/Analytic Geom 4 CCGPS Accel Analytic Geom B/Adv Alg 1 credit Credit Earned <input type="checkbox"/>	*Biology or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	American Government/Civics or AP Government/ Politics US or Dual Enrollment ½ credit Credit Earned <input type="checkbox"/>	Health ½ credit Credit Earned <input type="checkbox"/> Personal Fitness ½ credit Credit Earned <input type="checkbox"/> *** VI. CTAE Pathway Total 3 credits	Advanced Academic Pathways English/Language Arts, Math, Science, Social Studies An advanced academic pathway may be followed in any one of the content subjects listed above. Upon graduation, students earn an advanced academic pathway when they complete the required coursework to include at least one AP or one IB or one Dual Enrollment course. An advanced academic pathway should also include at least two credits in one world language. AP, Dual Enrollment and Georgia Virtual School courses may be available.
10	10 th Literature & Composition or World Literature & Composition or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	*1 CCGPS Analytic Geom 2 CCGPS Adv Algebra 3 Accel Analytic Geom/Adv Alg 4 CCGPS Pre-Calculus 1 credit Credit Earned <input type="checkbox"/>	*Physical Science or Physics or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	World History or AP World History or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	02.47100 Basic Agriculture Science & Technology or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	World Language Pathways **2 credits required for admissions to University System Institutions For a listing of world language courses offered at your high school, please check with your advisor, counselor, or local course description catalog. A world language pathway may be followed in any of the world language areas included in the state list of approved courses. Upon graduation, students earn a world language pathway when they complete 3 units in one language. The third course may reflect an AP, IB or Dual Enrollment designation. Georgia Virtual School and ACCEL courses may be available.
11	American Literature/Composition or AP English Language & Composition/American Lit or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	*1 CCGPS Adv Alg 2 CCGPS Pre-Calculus 3 CCGPS Accel Pre-Cal 4 CCGPS Cal or AP Cal 1 credit Credit Earned <input type="checkbox"/>	*Chemistry or Environmental Science or Earth Systems or AP/IB or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	United States History or AP US History or IB History of the Americas or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	****Proposed course General Horticulture & Plant Science or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	Fine Arts/Performing Arts Pathways Visual Arts, Dance, Music, Journalism, Theatre A fine arts pathway may be followed in any one of the five areas listed above. Upon graduation, students complete a fine arts/performing arts pathway when three courses have been successfully completed in any one of the five areas. A student should consult a counselor or advisor for related coursework. AP, Dual Enrollment and Georgia Virtual School courses may be available.
At the end of the 11 th grade, students planning to enter a University System of Georgia Institution or Technical College System of Georgia Institution should take the appropriate admissions test (SAT, ACT, Compass).						
12	Advanced Composition or British Literature or AP English Literature & Composition or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	CCGPS Pre-Cal or Adv Math Decision Making or Math of Ind & Govern or AP Stats or IB Math or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	Any other previous courses or Zoology or Ecology or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	Econ/Business/Free Enterprise or AP Macro Econ or AP Micro Econ or IB Econ or Dual Enrollment ½ credit Credit Earned <input type="checkbox"/>	****Proposed course Nursery & Landscape or Dual Enrollment 1 credit Credit Earned <input type="checkbox"/>	Legend: *Science: Approved 4th Sciences may be used to meet both the required science and required elective in a Career, Technical and Agricultural Education (CTAE) sequence of courses; see Fourth Science Requirements for more information. Student may take science courses in any sequence. *Math: Select Math sequence 1, 2, 3, 4, based on 9 th grade entry course. **Students must complete 2 years (2 credits) of the same world language for admission to University System of Georgia institutions. *** Students should complete a CTAE pathway and take the related end of pathway assessment. ****Proposed courses are under development and review.
Sample Elective Courses	<u>Other English Elective Courses:</u> Literary Types/Composition Journalism Oral/Written Communication Speech	<u>Other Math Elective Courses:</u> Calculus AP Calculus Math of Finance	<u>Other Science Elective Courses:</u> Botany or Microbiology Research III or IV Entomology	<u>Other Social Studies Elective Courses:</u> Current Issues Sociology World Geography	<u>Other CTAE Elective Courses:</u> AP and Georgia Virtual School may be available for CTAE courses	NOTE: All courses do not follow the same sequence at the local level; not all local systems offer every pathway. Students should explore all credit possibilities including Georgia's Virtual School Program , Dual Enrollment , Advanced Placement (AP), International Baccalaureate (IB) and Work-Based Learning (WBL) to reach their educational and career goals.

SAMPLE Pathway OCCUPATIONS			
See * Georgia's HOT Careers to 2020 for more information on high-skilled, high-wage and high-demand occupations.			
Occupation Specialties	Entry Level of Education Needed	2012 Annual Wage	Annual Openings 2012-2020
Floral Designers	High School	\$24,100	50
Landscape Architects	Bachelor's Degree	\$59,300	10
Soil & Plant Scientists	Bachelor's Degree	\$68,100	10

Source: Georgia Department of Labor/ONET

Go to GAcademy411 at <http://www.GAcademy411.org> for more information about your education and career planning, including valuable financial aid information that includes grants and scholarships.

**** Current Georgia Graduation Rule			
Coursework	Credits	Coursework	Credits
I. English/Language Arts	4	V. Health & Physical Education	1
II. Math	4	VI. **Career, Technical & Agricultural Education and/or ***World Languages, and or Fine Arts	3
III. *Science	4	VII. Electives	4
IV. Social Studies	3	TOTAL	23

*Selected [4th Science](#) courses may be used to meet both the required science and required elective in CTAE sequence of courses.
 **Students must complete 3 credits to complete CTAE pathway and take the end of pathway assessment.
 ***Students must complete 2 years of the same world languages for admission to Georgia Board of Regents colleges/universities.
 **** Current graduation requirements should be met in all content areas.
 NOTE: This plan represents minimum graduation requirements. Local systems may require additional coursework.

Postsecondary Transition:

- Students who will continue their education in a Program of Study at one of University System of Georgia institutions should prepare to take the ACT or SAT for admissions. Admission's testing varies from institution to institution. Students should contact the selected institution for specific testing information. Additional admissions information can be found at [Staying On Course](http://www.usg.edu/student_affairs/documents/Staying_on_Course.pdf). (www.usg.edu/student_affairs/documents/Staying_on_Course.pdf)
- Students who will continue their education in a Program of Study at one of Georgia's Technical Colleges should prepare to take the COMPASS test for admissions.
- Students who will continue their education and training in the US Military should take the ASVAB assessment.
- Students should utilize [GAcademy411](#) to select the most appropriate postsecondary opportunities including registered apprenticeships to match their selected career field.
- Students can earn both high school and postsecondary credit while in high school. Georgia has multiple [dual enrollment](#) programs, including ACCEL, AP, IB, Dual Hope, Move On When Ready and Articulation.

Possible Student Pathway Credentialing Opportunities:

NOCTI- Plant Systems

*Related Pathway Occupations:	Other Related Agriculture, Food, & Natural Resources Occupations:
Zoologists & Wildlife Biologists	Food Technicians
Agricultural & Food Science	Foresters
Biochemists & Biophysicists	Grounds Maintenance Workers
Economists	Landscape & Grounds keeping Workers
Farm & Home Management Advisors	Nursery Workers
Floral Designers	
Soil & Plant Scientists	

*ONET Online

Plant Systems

A career in plant science and horticulture 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.

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 soil and plant scientists.

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. 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.