### Student Plan of Study – Forestry and Animal Science

**Name:**

**Date:**

**School:**

**Parent/Guardian Signature:**

**Date:**

**Advisor/Counselor Signature:**

**Date:**

### Current Area of Interest: Agriculture, Food & Natural Resources/Forestry and Animal Science - 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 the 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.

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>I. English/Language Arts</th>
<th>II. Math</th>
<th>III. Science</th>
<th>IV. Social Studies</th>
<th>V. Health/Personal Fitness</th>
<th>VII. Possible electives in additional pathways (students should check the local course description catalog for these and other electives)</th>
</tr>
</thead>
</table>
| 9th Literature & Composition or Approved Dual Enrollment Course | 1 CCGPS Cord Algebra | 1 Biology or Approved Dual Enrollment Course | 1 World History or Current Studies | 1 American Government/Ocivics or AP Government/Politics US or Approved Dual Enrollment Course | 1 Health | 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.

World Language Pathways: 
**Two credits are required for admission 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 three credits in one language. The third course may reflect an AP, IB, or Dual Enrollment designation.

Georgia Virtual School and ACCEL courses may be available.

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 11th grade, students planning to enter a University System of Georgia College or Technical College System of Georgia Institution should take the appropriate admissions test (SAT, ACT, Compass).

| 10th Literature & Composition or World Literature & Composition or Approved Dual Enrollment Course | 1 CCGPS Advanced Algebra | 1 Physical Science or Physics or AP Physics or Approved Dual Enrollment Course | 1 World History or American History or Early American or AP World History or Approved Dual Enrollment Course | 1 Science or Approved Dual Enrollment Course | 02.4700 Basic Ag Science or Approved Dual Enrollment Course | World Language Pathways: **Two credits are required for admission 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 three credits in one language. The third course may reflect an AP, IB, or Dual Enrollment designation.

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AP: Dual Enrollment and Georgia Virtual School courses may be available.

At the end of the 11th grade, students planning to enter a University System of Georgia College or Technical College System of Georgia Institution should take the appropriate admissions test (SAT, ACT, Compass).

| 11th American Literature/Composition or AP English Language & Composition or American Lit or Approved Dual Enrollment Course | 1 CCGPS Adv. Algebra | 1 Chemistry or Environmental Science or Earth Systems or AP Biology or Approved Dual Enrollment Course | 1 United States History or AP US History or IB History of the Americas or Approved Dual Enrollment Course | 1 Science or Approved Dual Enrollment Course | 03.4510 Forest Science or Approved Dual Enrollment Course | World Language Pathways: **Two credits are required for admission 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 three credits in one language. The third course may reflect an AP, IB, or Dual Enrollment designation.

Georgia Virtual School and ACCEL courses may be available.

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 11th grade, students planning to enter a University System of Georgia College or Technical College System of Georgia Institution should take the appropriate admissions test (SAT, ACT, Compass).

| 12th Advanced Composition or British Literature or AP IB English Literature & Composition or Approved Dual Enrollment Course | 1 CCGPS Pre-Cal or Adv Math Decision Making or Math of Ind & Govern & AP Statistics or IB Math or Approved Dual Enrollment Course | Any other of the previous courses or Zoology or Ecology or Approved Dual Enrollment Course | 1 Econ/Business/Free Enterprise or AP Micro Econ or AP Micro Econ or IB Econ or Approved Dual Enrollment Course | 1 Animal science & Biotechnology or Approved Dual Enrollment Course | 02.42100 Animal science & Biotechnology or Approved Dual Enrollment Course | Advanced Composition or British Literature or AP IB English Literature & Composition or Approved Dual Enrollment Course

Any other of the previous courses or Zoology or Ecology or Approved Dual Enrollment Course

Econ/Business/Free Enterprise or AP Micro Econ or AP Micro Econ or IB Econ or Approved Dual Enrollment Course

Animal science & Biotechnology or Approved Dual Enrollment Course

Advanced Placement (AP), International Baccalaureate (IB) and Work-Based Learning (WBL) to reach their educational and career goals.

**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 9th grade entry course.

**Students must complete two credits of the same world language for admission to University System of Georgia institutions.

**Students should complete a CTAE path and take the related end of pathway assessment.

Other CTAE electives are available to complete a related pathway.

NOTE: Local systems may offer core courses in a different sequence; 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.

**Richard Woods, Georgia’s School Superintendent

**Educating Georgia’s Future**
### SAMPLE Pathway OCCUPATIONS

See [Georgia’s HOT Careers to 2030](http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Documents/CTAE-Georgia-Assessments.aspx) for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery and Greenhouse Managers</td>
<td>Bachelor’s Degree</td>
<td>$69,300</td>
<td>450</td>
</tr>
<tr>
<td>Soil and Plant Scientists</td>
<td>Bachelor’s Degree</td>
<td>$68,900</td>
<td>10</td>
</tr>
<tr>
<td>Animal Scientists</td>
<td>Doctoral Degree</td>
<td>$61,700</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

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### Forestry/Animal Science Systems

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.

Some animal scientists inspect and grade livestock and food products. Others develop special foods for animals, purchase livestock, or work in technical sales or marketing. Scientists may also advise producers on optimizing animal housing, handling waste matter, or lowering mortality rates of livestock and other animals. They recommend methods to improve disease control and increase the quality and quantity of animal production.

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.

The farming and food production industry spends much money on breeding, raising, and feeding animals. The industry will continue to be interested in more efficient, less costly methods of raising animals. Therefore, employment of animal scientists at research firms will be needed to study new methods and develop healthier animals.

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### For more information about your education and career planning, including valuable financial aid information that includes grants and scholarships, see your school counselor.

#### **Current Georgia Graduation Rule**

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Credits</th>
<th>Coursework</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. English/Language Arts</td>
<td>4</td>
<td>V. Health &amp; Physical Education</td>
<td>1</td>
</tr>
<tr>
<td>II. Math</td>
<td>4</td>
<td>VI. <strong>Career, Technical &amp; Agricultural Education and/or</strong></td>
<td>3</td>
</tr>
<tr>
<td>III. <em>Science</em></td>
<td>4</td>
<td><strong>World Languages, and/or Fine Arts</strong></td>
<td>4</td>
</tr>
<tr>
<td>IV. Social Studies</td>
<td>3</td>
<td>VII. Electives</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL** | 23

*Selected 4th Science courses may be used to meet both the required science and required elective in a CTAE sequence of courses.

**Students must complete three credits to complete a CTAE pathway and take the end of pathway assessment.

***Students must complete two credits 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.

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**Postsecondary Transition:**

- 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](http://www.usg.edu/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 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 electronic college and career data bases 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 Move on When Ready, in which high school students may earn their high school course credits while taking college courses.

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**Possible Student Pathway Credentialing Opportunities:**

Students completing a pathway are eligible to take a Credentialing/End of Pathway Assessment (EOPA) upon successful completion of the three required courses in the pathway. For specific assessment information, refer to [http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/CTAE-Georgia-Assessments.aspx](http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/CTAE-Georgia-Assessments.aspx)

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*Related Pathway Occupations:*
- Agricultural Sciences Teachers
- Nursery and Greenhouse Managers
- Soil and Plant Scientists
- Animal Scientists
- Animal Breeders
- Nonfarm Animal Caretakers
- Nursery Workers
- Animal Trainers

*Other Related Agriculture, Food, & Natural Resources Occupations:*
- First-Line Supervisors of Animal Husbandry and Animal Care Workers

*ONET Online*