### Student Plan of Study – Environmental Agriculture Systems

**Revision #4 June, 2015**

**Name**

**Parent/Guardian Signature**

**Date**

**School**

**Advisor/Counselor Signature**

**Date**

Current Area of Interest: Agriculture, Food & Natural Resources/Environmental Agriculture 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 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 Total 4 credits</th>
<th>II. Math Total 4 credits</th>
<th>III. Science Total 4 credits</th>
<th>IV. Social Studies Total 3 credits</th>
<th>V. Health/Personal Fitness Total 1 credit</th>
<th>VII. Possible electives in additional pathways (students should check the local course description catalog for these and other electives) Total 4 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th</td>
<td>1 CCGPS Cord Algebra 2 CCGPS Analytic Geometry</td>
<td>3 CCGPS Accel Cord Algebra/Analytic Geometry</td>
<td>4 CCGPS Accel Analytic Geometry/Adv. Algebra</td>
<td>1 credit</td>
<td>American Government/Civics or AP Government/Politics US or Approved Dual Enrollment Course</td>
<td>Health ½ credit Credit Earned ⊗ Personal Fitness ½ credit Credit Earned ⊗</td>
</tr>
<tr>
<td>10th</td>
<td>1 CCGPS Analytic Geometry 2 CCGPS Advanced Algebra</td>
<td>3 CCGPS Accel Analytic Geometry/Adv. Algebra</td>
<td>4 CCGPS Pre-Calculus</td>
<td>1 credit</td>
<td>Physical Science or Physics or AP Physics or Approved Dual Enrollment Course</td>
<td>World History or AP World History or Approved Dual Enrollment Course 1 credit</td>
</tr>
<tr>
<td>11th</td>
<td>1 CCGPS Adv. Algebra 2 CCGPS Pre-Calculus</td>
<td>3 CCGPS Accel Pre-Cal 4 CCGPS Cal or AP Cal</td>
<td>1 credit</td>
<td>Chemistry or Environmental Science or Earth Systems or AP/IB or Approved Dual Enrollment Course</td>
<td>United States History or AP US History or IB History of the Americas or Approved Dual Enrollment Course</td>
<td>03.42200 Environmental Science &amp; Stewardship or Approved Dual Enrollment Course 1 credit</td>
</tr>
</tbody>
</table>

At the end of the 11th 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).

**Legend:**

- Science: Approved 4th Science 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 pathway and take the related end of pathway assessment.**

**List of Courses:**

- **Advanced Composition**
- **British Literature or AP English Literature**
- **Composition or Approved Dual Enrollment Course**
- **Other English Elective Courses**
- **Literary Types/Composition**
- **Journalism**
- **Oral/Written Communication Speech**

**Sample Elective Courses:**

- **Literary Types/Composition**
- **Journalism**
- **Oral/Written Communication Speech**

**Courses:**

- **Other Science Elective Courses:** Genetics or AP Biology, Science, or Microbiology or Entomology
- **Other Social Studies Elective Courses:** Current Issues or AP History Soc or Sociology or World Geography

**Other CTAE Elective Courses:**

- **Other CTAE electives or AP/IB Social Studies**

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 2020* 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>Environmental Engineers</td>
<td>Master’s Degree</td>
<td>$72,000</td>
<td>40</td>
</tr>
<tr>
<td>Environmental Economists</td>
<td>Doctoral Degree</td>
<td>$93,500</td>
<td>10</td>
</tr>
<tr>
<td>Environmental Engineering Technicians</td>
<td>Bachelor’s Degree</td>
<td>$37,900</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

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

<table>
<thead>
<tr>
<th><strong>Current Georgia Graduation Rule</strong></th>
</tr>
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<tr>
<td>Coursework</td>
</tr>
<tr>
<td>-------------------------------------</td>
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<tr>
<td>I. English/Language Arts</td>
</tr>
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<td>II. Math</td>
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<tr>
<td>III. *Science</td>
</tr>
<tr>
<td>IV. Social Studies</td>
</tr>
</tbody>
</table>

*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.

### 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 admission vary from institution to institution. Contact the selected institution for specific testing information. Additional admissions information can be found at Staying On Course. ([www.usg.edu/student_affairs/documents/Staying_on_Course.pdf](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 the college and career electronic 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.

### 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)

### *Related Pathway Occupations:*
- Environmental Engineers
- Environmental Economists
- Environmental Engineering Technicians
- Environmental Scientists
- Environmental Specialists
- Natural Resource Managers

### Other Related Agriculture, Food, & Natural Resources Occupations:
- Agriculture and Food Scientists
- Agronomists
- Agricultural Chemists
- Agriculture Education Instructors
- Farm Managers

### Environmental Agriculture Systems
Environmental engineers research, design, plan, or perform engineering duties in the prevention, control, and remediation of environmental hazards using various engineering disciplines. Work may include agricultural waste treatment, site remediation, or pollution control technology. Environmental engineers use the principles of engineering, soil science, biology, and chemistry to develop solutions to environmental problems. They are involved in efforts to improve recycling, waste disposal, public health, and water and air pollution control.

Environmental engineering technicians carry out the plans that environmental engineers develop. They test, operate, and, if necessary, modify equipment used to prevent or clean up environmental pollution. They may collect samples for testing, or they may work to mitigate sources of environmental pollution.

Environmental economists conduct economic analysis related to environmental protection and use of the natural environment, such as water, air, land, and renewable energy resources. Environmental economists assess the costs and benefits of various activities, policies, or regulations that affect the environment or natural resource stocks. Environmental economists also collect and analyze data to compare the environmental implications of economic policy or practice alternatives.

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