# Student Plan of Study - Food Products & Processing Systems

## Name ___________________________  Date ___________________  School ___________________________

Parent/Guardian Signature ___________________________  Date ___________________  Advisor/Counselor Signature ___________________________  Date ___________________

**Current Area of Interest: Agriculture, Food & Natural Resources/Food Products & Processing 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 Grade</td>
<td>1 CCGPS Cord Algebra</td>
<td>Bi/Chemistry or Bi/Chemistry</td>
<td>American Government/Politics or AP Government/Politics</td>
<td>Health ½ credit</td>
<td>Advanced Academic Pathways English/Language Arts, Math, Science, Social Studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 credit *</td>
<td>1 credit *</td>
<td>½ credit Credit Earned</td>
<td>Credit Earned</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>10th Grade</td>
<td>1 CCGPS Analytic Geometry</td>
<td>Physical Science or AP Physics</td>
<td>World History or AP World History</td>
<td>02.47100 Basic Ag Science or Approved Dual Enrollment Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 credit</td>
<td>1 credit *</td>
<td>1 credit Credit Earned</td>
<td>02.47100 Basic Ag Science or Approved Dual Enrollment Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11th Grade</td>
<td>1 CCGPS Adv. Algebra</td>
<td>Chemistry or Environmental Science</td>
<td>United States History or AP US History or IB History of the Americas or Approved Dual Enrollment Course</td>
<td>01.44100 Ag Food Products &amp; Processing or Approved Dual Enrollment Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 credit</td>
<td>1 credit *</td>
<td>1 credit Credit Earned</td>
<td>01.44100 Ag Food Products &amp; Processing or Approved Dual Enrollment Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12th Grade</td>
<td>1 CCGPS Pre-Cal or Adv Math Decision Making or Math of Ind &amp; Govern or AP Statistics or IB Math or Advanced Placement Math or IB Math or Advanced Placement Math Course</td>
<td>Any other of the previous courses or Zoology or Ecology or Advanced Placement Environmental Science or AP Environmental Science or AP Advanced Placement Environmental Science or AP Advanced Placement Environmental Science Course</td>
<td>Econ/Business/Free Enterprise or AP Macroecon or AP Microecon or IB Econ or Approved Dual Enrollment Course</td>
<td>02.43200 Ag Meat &amp; Dairy Product or Approved Dual Enrollment Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 credit</td>
<td>1 credit *</td>
<td>½ credit Credit Earned</td>
<td>1 credit Credit Earned</td>
<td></td>
<td></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 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 pathway and take the related end of pathway assessment.**

**Sample Elective Courses:**

- Literary Types/Composition
- Oral/Written Communication
- Journalism
- Other English Elective Courses: Calculus, AP Calculus, Math of Finance
- Other Math Elective Courses: Calculus, AP Calculus, Math of Finance
- Other Science Elective Courses: Genetics or AP Biology, Science or Microbiology or Entomology
- Other Social Studies Elective Courses: Current Issues or AP/IB Soc Studies or Sociology or World Geography
- Other CTAE Elective Courses: 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.

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Richard Woods, Georgia’s School Superintendent  
"Educating Georgia’s Future"
SAMPLE Pathway OCCUPATIONS

See [Georgia’s HOT Careers to 2030](https://www.gacollege411.org) 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>Food Scientists and Technologists</td>
<td>Bachelor’s Degree</td>
<td>$48,000</td>
<td>10</td>
</tr>
<tr>
<td>Food Preparation Workers</td>
<td>High School Diploma</td>
<td>$19,600</td>
<td>960</td>
</tr>
<tr>
<td>Dietetic Technicians</td>
<td>High School Diploma</td>
<td>$22,200</td>
<td>20</td>
</tr>
</tbody>
</table>

*Related Pathway Occupations:
- Food Scientists and Technologists
- Food Batch makers
- Food Science Technicians
- Food Service Managers
- Food Preparation Workers
- Food Servers, Nonrestaurant
- Dietetic Technicians
- Food Preparation and Serving Related Workers

Source: Georgia Department of Labor/ONET

**Go to GAcollege411 at [http://www.GAcollege411.org](http://www.GAcollege411.org) for more information about your education and career planning, including valuable financial aid information that includes grants and scholarships.**

***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</strong> and/or</td>
<td>3</td>
</tr>
<tr>
<td>III. *Science</td>
<td>4</td>
<td>III. <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>23</td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
<td></td>
<td></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 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.usa.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 U.S. 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.

**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)

**Food Products & Processing Systems**

The Food Products and Processing Systems pathway is one of the pathways in the Agriculture, Food, and Natural Resources Career Cluster. Career opportunities in this pathway may include: Food and Drug Inspector, Food Meal Supervisor, Food Processor, Meat Cutter-Meat Grader, Meat Processor, Produce Buyer, Bacteriologist, Biochemist-Nutritionist, Bioengineer, Dietician, Food and Fiber Engineer, Food Scientist, Meat Science Researcher, Microbiologist, or Quality Control Specialist. The possible knowledge and skills in this pathway could include the following:

- Demonstrate safety practices related to food science, identify the importance of consumer education in food science and safety,
- Explain the process involved in safe food preparation,
- Characterize harmful and beneficial microbes in food products and processing, illustrate how the food industry utilizes biotechnology in the safe, efficient and economical production of food products,
- Compare risks in life with risks associated with food additives and processing, identify the dangers of chemicals in our food supply, and
- Describe the local, state and federal regulations that affect the food products and processing industry.

The green economy will cause a change in occupations’ employment demand or work and worker requirements such as tasks, skills, knowledge, and credentials. These occupations with green economy activities and technologies are likely to increase the employment demand, but will not lead to significant changes in the work and worker requirements. Agricultural inspectors, agricultural technicians, buyers and purchasing agents for farm products, farm and ranch managers, and first-line supervisors of agricultural crops and horticulture workers have been identified as part of this green economy sector.

Richard Woods, Georgia’s School Superintendent
*“Educating Georgia’s Future”*