Agriculture, Food, and Natural Resources  
North County High School Career Cluster Program of Study

This Program of Study Template can serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner’s educational and career goals. Ask your high school counselor to help you fill in the required courses you need to graduate.

<table>
<thead>
<tr>
<th>Grade</th>
<th>English 8 semesters</th>
<th>Math 6 semesters</th>
<th>Science 6 semesters</th>
<th>Social Studies 6 semesters</th>
<th>Other Required Courses, Recommended Electives</th>
<th>Career &amp; Technical Courses and/or Degree Major Courses</th>
<th>SAMPLE Occupations Relating to this Pathway</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Comm Arts I</td>
<td>High School Math</td>
<td>High School Science Course</td>
<td>High School S.S. Course</td>
<td>Personal Finance, Computer Science, Ag electives</td>
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*Dual Credit College courses can often be substituted for high school credit. Check with your Counselor.*  
*Dual Enrollment courses – MAC campus or Online.*  
**Assessments/Certifications:** College Placement Assessments, Compass, ACT, SAT  
**Clubs/Extracurricular Activities:** CTSO(s): □ FBLA □ FCCLA □ FFA  
**Work-Based Learning:** □ After School Employment □ Internship/Mentorship □ Job Shadowing □ Service Learning □ Supervised Business Experience  

**SAMPLE Occupations Relating to this Pathway**

- **Occupations Requiring Postsecondary Education**
  - Agricultural Communications Specialist  
  - Agricultural Salesperson  
  - Food & Drug Inspector  
  - Food Meal Supervisor  
  - Food Processor  
  - Meat Cutter-Meat Grader  
  - Meat Processor  
  - Produce Buyer

- **Occupations Requiring Baccalaureate Degree & Beyond**
  - Agricultural Educator  
  - Bacteriologist  
  - Biochemist-Nutritionist  
  - Bioengineer  
  - Dietician  
  - Food & Fiber Engineer  
  - Food Scientist  
  - Meat Science Researcher  
  - Microbiologist  
  - Quality Control Specialist

*Check with school counselor for dual enrollment classes available on the MAC on the web or on one of the MAC campuses.

*Ask your Counselor what is available at your school.
The production, processing, marketing, distribution, financing, and development of agricultural commodities and resources including food, fuel, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

### Sample Career Specialties / Occupations

| Pathways | Agriculture Educators | Agricultural Journalists | AI Technicians-Agriculturalists | Animal Caretakers | Poutry Managers | Animal Health Salespersons | Animal Nutritionists | Animal Scientists | Dairy Producers | Embryo Technologists | Equine Managers | Feed Sales Representatives | Feed Sales Specialists | Feedlot Specialists |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Food Products and Processing Systems | Agricultural Educators | Agricultural Journalists | AI Technicians-Agriculturalists | Animal Caretakers | Poutry Managers | Animal Health Salespersons | Animal Nutritionists | Animal Scientists | Dairy Producers | Embryo Technologists | Equine Managers | Feed Sales Representatives | Feed Sales Specialists | Feedlot Specialists |
| Agricultural Sales | Bacteriologists | Biochemists | Bioengineers | Cheese Makers | Crop Farm Managers | Custom Hay/Silage | Operators | Education & Extension Specialists | Farmers | Forest Geneticists | Golf Course Superintendents | Grain Operations | Superintendents | Greenhouses Mangers |
| Bacteriologists | Biochemists | Bioengineers | Bioengineers | Cheese Makers | Crop Farm Managers | Custom Hay/Silage | Operators | Education & Extension Specialists | Farmers | Forest Geneticists | Golf Course Superintendents | Grain Operations | Superintendents | Greenhouses Mangers |
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### Cluster Knowledge and Skills

- Premier Leadership
- Personal Growth
- Career Success
- Organizations and Associations
- Organizational Structures and Processes
- Safety, Health, and Environmental Management
- Health and Safety Procedures
- Tools, Equipment, Machinery and Technology
- Issues
- Technology and Globalization
- Scientific Inquiry

### Environmental Service Systems

- Pollution Prevention
- Water & Air Quality
- Hazardous Materials
- Solid Waste Management, Health & Safety Sanitation, etc.

### Natural Resources Systems

- Habitat
- Conservation, Forest
- Products, Parks and Recreation, Mining, Environmental
- Services, Fisheries, Soil Conservation, etc.

### Agribusiness Systems

- Sales, Service, Farm Management, Entrepreneurship, Economics, etc.