



Food Science

-Curriculum Map-

Pequea Valley Agricultural Education



Course Description: Food is a major part of our world. We consume it every day but how many of us know how each food item makes it to our plate? This course will focus on the process our food undergoes as it travels through the production process. Students will examine current food trends and processing techniques of meat, milk, and poultry products. Hands-on, interactive labs will be used to teach the course content, allowing students to build the skills needed to work in the food industry. The course will also provide the students the skills and knowledge to safely preserve and handle food according to industry standards.

FFA Membership: You are an FFA member when you are enrolled in an agriculture class taught by Mr. Masser and/or Mrs. VanSant! You are welcome to attend FFA meetings when they are held on Wednesdays. Keep your ears open for opportunities that may interest you such as...

Career Development Events
Agriscience Research - Food Science Option
Leadership (Conferences, Public Speaking, Parliamentary Procedure)

Events occur throughout the year. Preparation for these events occurs outside regular class time, but your hard work could get you a trip to the Penn State campus in June, National FFA Convention in Indianapolis, IN, or BOTH! See Mr. Masser or Mrs. VanSant for details.

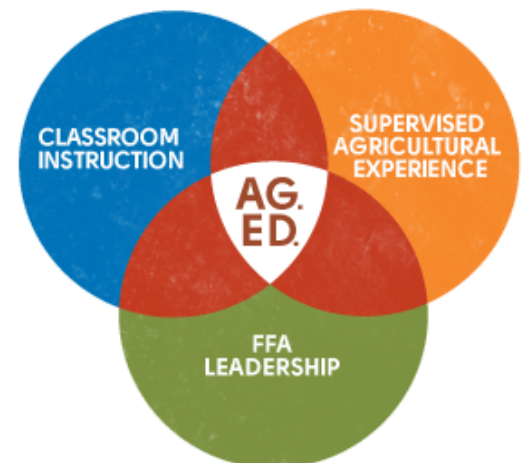
Supervised Agricultural Experience (SAE): Looking to earn an additional 1 elective credit for completing a project that interests you? The Agricultural Education department offers 1 elective credit to students who successfully complete an SAE project.

An SAE is ANY project that is student-driven, agriculturally-related, and supervised by an agriculture teacher. These projects could include:

Agriscience Fair Project
Work Experiences
Caring for Animals or Plants
Improvement Projects
Career Exploration Projects

Have a cool idea for an SAE?

Ask your teacher how you can get started. We have connections to local businesses that will hire you, provide you greenhouse space, space to house animals and more!



Course Outline:

| Week | Unit | Topic Areas |
|----------------------|-------------------------------|--|
| Week 1 | Unit 1: What is Food Science? | Topic 1: What is Food Science? |
| Week 2 | | Topic 2: Scientific Research Skills |
| | | Topic 3: Current Trends in the Industry |
| Week 3 | Unit 2: Milk | Topic 1: Components of Fluid Milk |
| Week 4 | | Topic 2: Milk Processing |
| Week 5 | | Topic 3: Yogurt Processing |
| Week 6 | | Topic 4: Ice Cream Processing |
| | | Topic 5: Cheese Processing |
| Week 7 | Unit 3: Meat | Topic 1: Butchering Process |
| Week 8 | | Topic 2: Yield and Quality Grading |
| Week 9 | | Topic 3: Wholesale and Retail Cuts of Beef, Pork, Lamb, and Goat |
| Mid-Term Exam | | |
| Week 10 | Unit 4: Poultry | Topic 1: Butchering Process of Poultry |
| Week 11 | | Topic 2: Processing of Poultry Products |
| Week 12 | | Topic 3: Egg Quality |
| Week 13 | | |
| Week 14 | Unit 5 Food Preservation | Topic 1: Importance of Food Preservation |
| Week 15 | | Topic 2: Freezing |
| Week 16 | | Topic 3: Canning/Pickling |
| Week 17 | | Topic 4: Drying |
| Week 18 | Unit 6: Food Safety | Topic 1: Types of Foodborne Illnesses |
| Week 19 | | Topic 2: HACCP |
| Week 20 | | Topic 3: Food Handling Procedures |
| Final Exam | | |