

Plant and Soil Science  
Mrs. Blair Gerlach  
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### **Course Description:**

Plant and Soil Science is an applied-knowledge course focusing on the science and management of plants and soils, with special attention given to current agricultural practices that support the healthy and sustainable cultivation of major crops.

### **Skills Needed:**

- ❖ Willingness to become involved in activities with the Ag Ed program and FFA chapter.
- ❖ Positive and productive work ethic
- ❖ Responsibility and time management
- ❖ Willingness to accept challenges and give 110%
- ❖ Courteous and respectful to everyone in the classroom
- ❖ Willingness to participate and work both independently and in teams effectively

**Course Units:**     *The extent of the content will be time dependent.*

- ❖ Semester 1
  - History of Plant and Soil Science
  - Soil vs. Dirt
  - Soil Components
  - Soil Organic Matter
  - Using Textural Triangle
  - Soil Moisture by Feel and Appearance
  - Soil Quality Measurement
  - Soil Bulk Density
  - Soil Electrical Conductivity
  - Web Soil Survey
  - Soil pH: What Affects it, What it Affects, Managing it and Testing it
  - Soil Nitrogen
  - Soil Phosphorus
  - Soil Infiltration
- ❖ Semester 2
  - Plant Classification
  - Plant Structures
  - Plant Anatomy
  - Plant and the Environment
  - Plant Physiology

- Plant Reproduction
- Plant Growth
- Real-World Applications- Management Plans

**Standards:**

[AFNR Common Career Technical Core Standards Alignment](#)

**Grading Criteria:**

**Grading Weights:**

Content= 70%

Test

Projects

Process= 30%

Class Activities

Participation

**Grading Scale:**

A+ = 100

A = 95

A- = 90

B+ = 89

B = 85

B- = 80

C+ = 79

C = 75

C- = 70

D+ = 69

D = 65

D- = 60

F = 59

**Classroom Expectations:**

The following classroom expectations may change slightly or be adjusted by the instructor at any time during the year as needed.

- ❖ Be prepared for class and begin work when you arrive.
- ❖ Respect others, their space, and their belongings.
- ❖ Phones will be deposited in cell phone slots when entering the classroom. Phone usages without permission will result in 0/9th block.
- ❖ Please leave the classroom as you found it.

**Late Work:**

Late work will be accepted with a no later than date. Students will have two weeks after the assignment's original due date. Once those two week have passed the assignment will not be allowed to be submitted and will be recorded as a zero.

**Makeup Work:**

Makeup assignments and information are put in the absent work bin in Mrs. Gerlach's classroom. Students are responsible for getting their own makeup work and signing up to

makeup activities, and assessment with Mrs. Gerlach. Students have 1 week to complete makeup work before it goes in the gradebook as a zero.

Cheating/Plagiarism:

Cheating and/or plagiarism will **not be tolerated**. Students caught cheating will receive a zero on the assignment. Students caught cheating together will BOTH receive a zero on assignments. This includes copying work from another student, and/or resources.

Technology:

We will be using Google Classroom in our classroom, along with the internet and other online resources. Any inappropriate use of technology, including cell phone usages will result in 0/9th block.

**Other Information:**

Extra credit will be available throughout the year. Extra credit is NOT “instead of” credit. You cannot make up points to cover an assignment you didn’t complete or to replace participation points. Extra credit is only for homework, projects, tests, and quizzes. The instructor must also approve the extra credit beforehand. In order to receive extra credit, you just have to ask the instructor. Opportunities for extra credit will be provided at various times during the course.

Communication is highly encouraged in this classroom. I am always available to provide extra assistance to students on assignments and projects. Contacting me to discuss projects or set up extra work time for something is always an option, before and after school.

**Course content, student expectations, and other items on the syllabus are subject to change and/or vary throughout the year.**