1. **COURSE TITLE\*:** Soils
2. **CATALOG – PREFIX/COURSE NUMBER/COURSE SECTION\*:** AGRI 2208
3. **PREREQUISITE(S)\*:**  None  **COREQUISITE(S)\*:** None
4. **COURSE TIME/LOCATION/MODALITY: (*Course Syllabus – Individual Instructor Specific*)**
5. **CREDIT HOURS\*:** 4 **LECTURE HOURS\*:** 3

**LABORATORY HOURS\*:** 1 (2 contact) **OBSERVATION HOURS\*:** 0

1. **FACULTY CONTACT INFORMATION: *(Course Syllabus – Individual Instructor Specific)\***
2. **COURSE DESCRIPTION\*:**

An introduction to the physical, chemical, and biological properties of soils and how these properties relate to soil use and productivity.

1. **LEARNING OUTCOMES\*:**

At the completion of this course the student will:

1. Describe the basic components of soil

2. Understand the processes involved in soil formation.

3. Be able to interpret information contained in NRCS soil survey reports.

4. Understand the basis for the soil taxonomy (classification) system and be able to describe the more common and important soil orders.

5. Be able to describe the nature of soil separates and their influence on soil structure.

6. Understand the importance of and the factors that influence soil aeration, soil water movements and soil temperature.

7. Understand the nature of soil colloids.

8. Describe the processes known as cation and anion exchange and understand their significance as part of the soil-plant continuum.

9. Understand the influences of soil pH.

10. Recognize/describe the factors (both naturally occurring and human manipulated) that lead to changes in soil pH.

11. List the important micro and microorganisms of the soil and describe their influence.

1. **ADOPTED TEXT (S):**

*The Nature and Properties of Soils*

15th edition;

Brady and Weil

Pearson

ISBN: 978-0-13-325448-8

**9a: SUPPLEMENTAL TEXTS APPROVED BY FULL TIME DEPARTMENTAL FACULTY (INSTRUCTOR MUST NOTIFY THE BOOKSTORE BEFORE THE TEXTBOOK ORDERING DEADLINE DATE PRIOR TO ADOPTION) \*\*\*.**

1. **OTHER REQUIRED MATERIALS: (SEE APPENDIX C FOR TECHNOLOGY REQUEST FORM.)\*\***

Other resources may be required as the term progresses and will be announced or given in class.

1. **GRADING SCALE\*\*\*:**

Grading will follow the policy in the catalog. The scale is as follows:

A: 90 – 100

B: 80 – 89

C: 70 – 79

D: 60 – 69

F: 0 – 59

Academic Honesty: See course catalog for policy. Academic honesty is expected; acts of dishonesty will not be tolerated.

1. **GRADING PROCEDURES OR ASSESSMENTS: (*Course Syllabus – Individual Instructor Specific)***

Knowledge of content is evaluated by various methods at the discretion of the instructor. All exams are comprehensive. Quizzes may be given at the instructor’s discretion. Make-up exams and quizzes will not be permitted.

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| --- | --- | --- |
| *Category* | ***EXAMPLE ONLY***  *Total Points* | *% of Grade* |
| Chapter Homework | 150 | 15% |
| Chapter Quizzes | 150 | 15% |
| Mid-term Exams (2) | 300 | 30% |
| Research Project | 200 | 20% |
| Final Exam | 150 | 15% |
| Attendance/Participation | 50 | 5% |
| Total | 1000 | 100% |
|  |  |  |

1. **COURSE METHODOLOGY: *(Course Syllabus – Individual Instructor Specific)***

This course may use lectures, discussion, video, computer slide show, in and out of class assignments, work projects, research papers, and written exams as appropriate to the course objectives.

1. **COURSE OUTLINE: *(Course Syllabus – Individual Instructor Specific)***

***(Insert sample course outline with learning outcomes tied to assignments / topics.)***

**Introduction and Overview**

Parent materials, weathering and soil formation

Soil type variations and soil mapping

Soil classification

Physical properties of soils

Soil water

The hydrologic cycle and its interaction with soils

Soil erosion

Soil air and soil temperature

Soil colloids

Soil reaction –pH

Soil organisms

Soil organic matter

**Suggested Course Outline:** **Learning Outcome(s)**

Week 1 overview and importance of soils to earth 1, 2

Week 2 parent materials 1, 2

Week 3 weathering and soil formation 1, 2

Week 4 soil types and soil mapping 1, 3, 4, 5

Week 5 soil classification 1, 3, 4

Week 6 physical properties of soils **Exam #1 5**

Week 7 soil water 6

Week 8 hydrologic cycle 6

Week 9 erosion 6

Week 10 soil air and temperature 6

Week 11 soil colloids 7

Week 12 soil reactions and soil pH **Exam #2** 9, 10

Week 13 soil organisms and organic matter11

Week 14 soil fertility concepts 8, 11

Week 15 on-farm soil management considerations 6, 8, 9, 10

Week 16 **Final Exam** (Exam #3)

1. **SPECIFIC MANAGEMENT REQUIREMENTS\*\*\*:**

**Student Responsibilities: Students must Read the Textbook and understand the Chapter Learning Objectives. Attend class and be prepared to participate in that day’s discussion, complete the Project(s) by the due dates, and complete the Quizzes & Exams by the due dates. Students must also Display Sincere adult Behavior in the classroom.  Students must do their own work!  No Plagiarism!**

Students may withdraw from classes according to the schedule in the student handbook. Withdrawal from classes may affect the student’s financial aid. See the FEE SCHEDULE section of the College Catalog for the policy on refunds and financial aid.

**Instructor Responsibilities:** It is the responsibility of the instructor to enhance and expand the meaning and application of the subject matter covered in the course. The instructor will not normally review the assigned text. The instructor will provide grades in a timely manner and make arrangements to be available for assistance as needed.

1. **FERPA:\***

Students need to understand that their work may be seen by others. Others may see your work when being distributed, during group project work, or if it is chosen for demonstration purposes. Students also need to know that there is a strong possibility that your work may be submitted to other entities for the purpose of plagiarism checks.

**17. ACCOMMODATIOS:\***

Students requesting accommodation may contact Ryan Hall, Accessibility Coordinator at rhall21@sscc.edu or 937-393-3431, X 2604.

Students seeking a religious accommodation for absences permitted under Ohio’s Testing Your Faith Act must provide the instructor and the Academic Affairs office with written notice of the specific dates for which the student requires an accommodation and must do so no later than fourteen (14) days after the first day of instruction or fourteen (14) days before the dates of absence, whichever comes first. For more information about Religious Accommodations, contact Ryan Hall, Accessibility Coordinator at [rhall21@sscc.edu](mailto:rhall21@sscc.edu) or 937-393-3431 X 2604.

**18. OTHER INFORMATION\*\*\*:**

**Classroom conduct:** Civility in the classroom is very important. As professionals, we expect students to conduct themselves in a courteous and respectful manner. Disruptive, rude, sarcastic, obscene or disrespectful speech or behavior have a negative impact on everyone and will not be tolerated.

**SYLLABUS TEMPLATE KEY**

**\*** Item cannot be altered from that which is included in the master syllabus approved by the Curriculum Committee.

**\*\*** Any alteration or addition must be approved by the Curriculum Committee

**\*\*\*** Item should begin with language as approved in the master syllabus but may be added to at the discretion of the faculty member.