COURSE OUTLINE

DEPT.  AGRI       COURSE NUMBER: 1103

NUMBER OF CREDITS: 3       Lecture: 2 Lab: 1 OJT 0

Course Title: Introduction to Soil Science

Catalog Description:
Introduction to Soil Science introduces students to the origin, formation, and classification of soils. This includes the physical, chemical, and biological properties of soils, soils as a medium for plant growth, elements, water, air, organic matter, and plant and animal life in the soil.

Prerequisites or Necessary Entry Skills/Knowledge:
None

FULFILLS MN TRANSFER CURRICULUM AREA(S)
Goal 1: Communication: by meeting the following competencies:

Goal 2: Critical Thinking: by meeting the following competencies:

Goal 3: Natural Sciences: by meeting the following competencies:

Goal 4: Mathematics/Logical Reasoning: by meeting the following competencies:

Goal 5: History and the Social and Behavioral Sciences: by meeting the following competencies:

Goal 6: The Humanities and Fine Arts: by meeting the following competencies:

Goal 7: Human Diversity: by meeting the following competencies:

Goal 8: Global Perspective: by meeting the following competencies:

Goal 9: Ethical and Civic Responsibility: by meeting the following competencies:

Goal 10: People and the Environment: by meeting the following competencies:
### Topics to be Covered
- The Importance of Soil
- Soil Origin and Development
- Physical Properties of Soil
- Soil Water
- Soil and Water Conservation
- Organic Matter
- Life in the Soil
- Government Agencies and Programs

### Student Learning Outcomes
- Describe the physical and chemical composition of soil.
- Explain the processes soil formation
- Explain the importance of soil for life and the environment.
- Identify types of soils
- Classify soils based on their texture.
- Analyze soil pH and its relationship to plant growth.
- Analyze soil nutrients and its relationship to plant growth.
- Explain the importance of good soil structure and its relationship to healthy soils.
- Evaluate best management practices for soil and water conservation.
- Describe the forms of soil water and its relationship to plant growth.

### Is this course part of a transfer pathway:  Yes ☐ No ☒

Revised Date: 7-15-2020