

Course Name: Grade Stabilization Structures – Module	
Course Coordinator: Area Engineer	Course Number: MI0024

Overview: This course emphasizes the planning, design and installation of Grade Stabilization Structures and is field oriented. It builds upon NRCS conservation planning and related policy, procedures and guidelines for carrying out the planning process, soil science, surveying, and hydrology. The participants will be instructed on the use of the tools that are available to aid the individual with the planning process, structure design, creation of construction drawings, and installation of the Grade Stabilization Structure.

The course consists basically of three parts: Classroom (Planning & Theory - 1 day), field work (Data gathering and confirmation - 1 to 2 days), Classroom (Design and Construction Drawings - 1 to 2 days).

Purpose: The purpose of the course is to prepare the participant to be able to apply with supervision the planning, design, and installation of grade stabilization structures. Also, to utilize supporting technology in order to assist customers in making decisions resulting in sound conservation, maintenance, and improvement of natural resources. Rather than a “how-to” document, this is to be regarded as a “why-to” document. That is, its intent is to enable you to recognize situations and conditions that are suitable for including Grade Stabilization Structures as a component of a conservation system, as well as situations that are NOT suitable.

Prerequisites:

- Basic Conservation Planning
- Making and Using Soil Surveys Training Module
- Basic Engineering Surveys for Conservation Practices Training Module
- Hydrology Training Series - Modules 106 through 106, 151, and 206A

Duration: One week (3 to 5 days)

Target Audience: NRCS and conservation partnership employees providing conservation technical assistance to control gully erosion or to stabilize the grade in channels.

Expected Outcomes:

The minimum proficiency level expected of the participant at the end of the course is “3 - Apply with Supervision.”

Resources needed:

Conference room for approximately four (4) participants (to maximize learning, four is the most that should be trained in a group); field exercise sites; Field Office Technical Guide, Section IV, practice standard Grade Stabilization Structure (410); Engineering Field Handbook; Soil Survey and/or complete soils information for the field sites; Michigan Construction Specifications; surveying equipment; access to the OHIO Engineering Programs; overhead projector; computer projector; and flip chart.

Outline for: Grade Stabilization Structures - Module

1. Pre-Reading List
2. Prerequisites
3. How to Work with Landowners
4. Planning Process
5. Inventory
6. Interaction Between Practices and Sites
7. SCS-SOI-5s
8. Photo Interpretation
9. Plant Identification and Suitability
10. Site Suitability
11. Agency Involvement
12. Sources of Reference Information
13. Cost Estimate
14. Equipment
15. Contractors
16. Safety
17. Timing
18. Erosion Calculations
19. Engineering
20. Practice Installation