

Model Decentralized Wastewater Practitioner Curriculum

SOILS 130 Soil Structure

Suggested Course Materials

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Agenda

<i>Time</i>	<i>Subject</i>	<i>Speaker</i>
845-900	Welcome Introduction of the subject	
900-930	Definition and formation of soil structure Description of soil structure; Shape (type), Grade; Size (Base on purple book for description).	
930-1000	Lab exercise describing soil structure	
1000-1015	Break	
1015-1100	Lab exercise (cont.)	
1100-1130	Discussion of field description	
1130-1200	Role of structure in management decisions	
1200-100	Lunch	
100-200	Role of structure (cont.)	
200-230	Travel to field	
230-500	Field exercise	

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Overview

This one-day short course covers the definitions, formation, features and characteristics of various soil structure and structureless conditions using the USDA soil structure description techniques. Students working in small teams or individually will utilize a multitude of bulk field soil samples and soils observed in backhoe pits to determine structure type, size and class and to determine suitability for on-site wastewater treatment systems. The potential adverse effects of on-site system construction and use on soil structure will be covered as well as methods to minimize adverse impacts.

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Goals

1. Participants will master an advanced working knowledge of soil structure used for accurate field descriptions of soil morphology.
2. Participants will begin learning how to apply their knowledge of soil structure to a typical land use question – land suitability for an on-site wastewater treatment system.

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Learning Objectives

1. To gain a better understanding of what structure is.
2. To gain a better understanding of how to describe structure.
3. To gain a better understanding of how structure forms.
4. To gain a better understanding of how to use structure to adjust LTAR.

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Prerequisites

Soils 110

Soils 130 Evaluation Form

Soil Structure

Evaluation Form

Name (optional): _____

With a rating scale of 1 (Disagree) to 5 (Agree), please respond to the following questions

Review of printed materials:

	Disagree			Agree
The text completely covers the topic area.	1	2	3	4 5
The visuals completely cover the topic area.	1	2	3	4 5
The discussion notes completely cover the topic area.	1	2	3	4 5

Review of learning objectives:

I gained a better understanding of what structure is.	1	2	3	4 5
I gained a better understanding of how to describe structure.	1	2	3	4 5
I gained a better understanding of how structure forms.	1	2	3	4 5
I gained a better understanding of how to use structure to adjust LTAR.	1	2	3	4 5

What specific recommendations would you provide for the text. _____

What specific recommendations would you provide for the visuals.

What specific recommendations would you provide for the notes. _____

Please give specific positive comments on the topic/module. _____

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Problem Sets

None

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Additional Materials

Munsell Color Books

Augers

Tape Measures

Several structure samples

County Soil Survey

Soil Monoliths or Cores

Soil Pits