# OJT Training Module Cover Sheet

**Title:** 410 Bulk Density- How to sample with the ring excavation method.

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<thead>
<tr>
<th>Type:</th>
<th>X Skill</th>
<th>□ Knowledge</th>
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**Performance Objective:** Trainee will be able to …
- Demonstrate the ring excavation method for collecting bulk density samples.
- Give examples of situations when specific methods should be used over other methods.

**Target Proficiency:**
- □ Awareness  □ Understanding  □ Perform w/ Supervision
- X Apply Independently  □ Proficiency, can teach others

**Trainer Preparation:**
- Trainer should be familiar with the assigned reading/review material in the lesson plan that follows.
- If possible, time training so that it coincides with sampling soils in the field as part of a sampling project.

**Special Requirements:**
Initiate an external learning request with a SF-182 in Aglearn for this activity. Instructions and a template are located on the training webpages for OJT modules.

**Prerequisite Modules:**
- □ 406 Understand the standard procedures for sampling soils–overview.

**Notes:**
Could be completed in conjunction with modules:
- □ 407 Bulk Density-How to sample with oriented clods.
- □ 408 Bulk Density-How to sample with the core method.
- □ 409 Bulk Density-How to sample with the compliant cavity method.
- □ 411 Bulk Density-How to sample with the frame excavation method.

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The Five-Step OJT Cycle for **Procedural** Training (Skill)

- **Cycle Step 1**
  - Trainer/Trainee establish shared mental model

- **Cycle Step 2**
  - Trainer demonstrates task as Trainee observes

- **Cycle Step 3**
  - Trainer coaches as Trainee performs task

- **Cycle Step 4**
  - Trainer observes Trainee performs task and gives feedback

- **Cycle Step 5**
  - Trainer/Trainee debrief
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<tr>
<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
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| Cycle step 1 | Trainer and trainee access via the internet and read/review:  
  - Soil Survey Field and Laboratory Methods Manual, SSIR #51:  
    - Fragile soil material  
    - Ring excavation method  
  - Soil Quality Test Kit Guide:  
    - Bulk Density Test |
| Cycle step 2 | Trainer demonstrates the ring excavation method described in the reading, how much sample to collect, how many replications are needed, and how far apart the replicated samples should be collected.  
  Trainer compares this method with the benefits of each other method and situations when each should be used. Explain that these methods are used for all soil survey studies, including characterization, rapid carbon assessment, and soil change. |
| Cycle step 3 | Coaching the trainee, have the trainee collect bulk density samples utilizing the ring excavation method. |
| Cycle step 4 | Repeat cycle step 3 without coaching. Trainer should encourage the trainee to list situations that favor one or more methods over another.  
  During project activities, assign the trainee the task of collecting bulk density samples. |
| Cycle step 5 | Answer any questions. Repeat any steps as necessary. |
OJT Module Lesson Measurement of Learning

Title: 410 Bulk Density- How to sample with the ring excavation method.

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<tbody>
<tr>
<td>Collect bulk density samples routinely during project activities.</td>
<td>During project activities, assign this task to the trainee. Sign off on performance when target proficiency is achieved.</td>
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</table>

**SF-182**

Trainee and/or supervisor access Aglearn to verify completion of the module via its SF-182.