### OJT Training Module Cover Sheet

**Title:** 304 Transects - How to collect transect data.

**Type:**  **Skill**  **Knowledge**

**Performance Objective:** Trainee will be able to …
- Collect transect data according to National Cooperative Soil Survey and regional office guidelines.

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

**Trainer Preparation:**
- Trainer should be familiar with the assigned reading/review material in the lesson plan that follows.
- Have available existing completed transect forms to use as examples (hardcopy or Pedon PC, whichever is used in your soil survey area).

**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:**
- 017 How to effectively orient yourself on a photographic image while mapping or traveling in the field in your soil survey area.
- Should be done in conjunction with module 303 Transects - How to plan for transect data.

**Notes:**
This applies to any order or scale of soil survey activity.

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

**Cycle Step 1**
Trainer/Trainee establishes shared mental model.

**Cycle Step 2**
- Trainer observes
  - 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
# OJT Module Lesson

**Title:** 304 Transects - How to collect transect data.

<table>
<thead>
<tr>
<th>WHAT</th>
<th>WHY, WHEN, WHERE, HOW, SAFETY, QUALITY</th>
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</table>
| **Cycle step 1** | Trainee should have read the SSM-Systematics.pdf excerpt attached to this module.  
Point out that this module is developed for the point intercept method, which is the primary method used in soil survey. Point out that these methods apply to any order or scale of soil survey activity. |
| **Cycle step 2** | Using the map unit(s) and polygon(s) addressed in the previous module (303-How to plan for transect data), do the following: |
| 1. Review form used in your survey area. | Discuss with trainee the site data collected and “hit list” of properties that you typically describe when gathering transect data and how this list differs from a “full” pedon description (if it does). Use existing completed transects as examples. |
| 2. Demonstrate how to orient and extend the transect within the polygon. | Reference the assigned reading. Emphasize to the trainee the need to:  
- Cross landscape pattern rather than line up with it in order to capture repeating variability.  
- In most cases, extend from edge to edge (of the polygon).  
Discuss how the size and shape of polygons influence orientation and whether or not you go from edge to edge. Show trainee how you would orient with different examples of size and shape. |
| 3. Demonstrate how to select and space points and intervals along the transect line. | Demonstrate the method used in your survey area.  
This may be done within ArcGIS or with paper and pencil. In module 303, you determined whether you would use 5-point or 10-point transects for adequate spatial coverage of the selected map unit.  
If using ArcGIS:  
- Show how points and intervals are managed in your survey area.  
- Show how point locations (waypoints) are captured (see module 601—How to manage waypoints and operate, navigate, and determine location using a GPS).  
If using paper and pencil:  
- Show how points and intervals are added to a base or reference map for this purpose in your survey area. |
4. Demonstrate capturing transect data.

Take trainee to the field where polygon is located. Demonstrate:
- Locating the starting point with or without GPS (as done in your survey area) and without bias.
- Completing site information on your transect (or 232) form.
- Navigate with GPS, compass, or visual orienteering from point to point across the polygon, capturing appropriate data at each point.
  - If not using GPS, demonstrate how you use a compass and tape, pacing, or other means to reach each predetermined point.

<table>
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<tr>
<th>Cycle step 3</th>
<th>Select another polygon of this or another map unit in need of transect data in your survey area. Coaching the trainee, have the trainee collect transect data.</th>
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<tbody>
<tr>
<td>Cycle step 4</td>
<td>Repeat cycle step 3 without coaching.</td>
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<tr>
<td></td>
<td>During project activities, assign the trainee the task of collecting transect data.</td>
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<tr>
<td>Cycle step 5</td>
<td>Answer any questions. Repeat any steps as necessary.</td>
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**OJT Module Lesson Measurement of Learning**

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<td>Collect transect data 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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**SF-182**

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