What do we hate? Learning outcomes!! Why do we hate them? WASC!!
Learning objectives in the flipped classroom

If a goal without a plan is a wish…
A plan without a goal is busy work.
Learning Objectives (goals, outcomes)
Learning Outcomes

• University learning outcome (the town):
  – Apply scientific methods and models to draw quantitative and qualitative conclusions about the physical and natural world.

• Course outcome (the house):
  – Explicate the relationship of soil characteristics to soil function.

• Single lesson learning outcome (a brick):
  – Define soil texture, draw the soil separates to scale, and explain how each soil separate influences soil chemical and physical function when it is dominant in a soil.
Goal:

By the end of this session, you will have specific, action-oriented, clear, realistic Basic and Advanced Learning Objectives for one lesson or concept in your flipped course.
Memory refresh: The flipped class model

**Individual space**
- Basic LOs
- Exposure to content
- Limited practice

**Group space**
- Advanced LOs
- Working with content
- Clarification
- Some new info

**Individual space**
- Advanced LOs
- Reflection
- Complex practice
What’s a useful learning outcome?

- **Fine-grained, specific, precise** – Maybe 5-10 LOs for a single concept
- **Measurable, descriptive, action-oriented** – Students DO something visible
- **Clear, unambiguous** – An intelligent non-expert can follow
- **Appropriate to the course level and student preparation** – Do-able with a reasonable level of support in the time available
Critique:

- Have a general knowledge of the properties and reactivity of alkanes, alkenes, alkynes, alcohols, and alkyl halides

- Think across and beyond existing disciplinary boundaries, mindful of the diverse forms of knowledge and experience that arise from human interactions with the world around them
Basic vs Advanced Learning Outcomes

Basic:
Can be done in pre-work

- Define soil texture
- Draw the soil separates to scale

Advanced:
Probably needs support

- Explain how each soil separate influences soil chemical and physical function when it is dominant in a soil.

Based on the soil textural class, predict physical limitations for a particular soil and suggest remediation strategies
Take Action: Write LOs
15 minutes

• Consider your focus concept or lesson and rough out as many LOs as you need.
  – What EXACTLY are students supposed to learn?
  – What constitutes acceptable evidence that they have learned it?
  – If you’re not sure, put in a placeholder word.

• Re-order the LOs in order of increasing complexity, simple to complex.
Learn from someone: 5 mins EACH
Time will be kept!

• Show your ordered LOs to your partner.

• Listen and make notes while your partner reflects aloud on their precision, clarity, and measurability.

• With one minute left, make a note about *exactly* what you want to do next to get your LOs right.
Revise your LO’s
10 mins
Anyone want to share an example?