



Method of unpacking the standards for a Student-Centered Classroom

In a student centered classroom it is essential that students work together to construct their own understandings of the content with the teacher as the guide and mentor. In the engineering classroom, it is particularly important for the student to be an active participant in the learning process and the discoverer of content. For the students to be fully engaged in the learning activities, they must understand the goals of the learning activities. This can be partially achieved through the objective statements of the lessons, but all instruction ultimately goes back to the standards. As your students take control of their own learning, you may want to move to a model where the students unpack the standards and create their own standards statements.

As an option, here is an alternative lesson component for the students to be able to unpack the standards and work in groups to develop their own standards statement that they will use to guide their own learning.

1. **Discussion in small groups:** Ask the students to take apart the standard so they understand what they are going to do be doing. Within the time frame the students are to:
 - write their interpretation of the standard in their notebook
 - The Project Manager will be ready to share out the team's interpretation of the lesson

Note to Teacher: Circulate among the teams as they look at the standard. Listen to hear the students dissecting the standard to determine meaning. Remind students that they are looking for an explanation of the standard that makes sense to them. Each team should have a short one to two sentence explanation of the standard that they are going to be using different resources to determine the history of service-learning and how they will be able to learn content material through the application of engineering practices by providing a service to the community.

2. **Whole Class Discussion-**
 - Each group will share out their interpretations of the standards.
 - Have a class scribe write the objectives on a piece of chart paper or the board. Remind the students that if there is anything that they feel that they would like to add to their notebook, this would be a good time during the discussion.