## Presentation to the Tuning Oversight Council for Engineering and Science

## The Development of Effective Student Learning Outcomes

## January 6, 2012

## Austin, TX

- I. Why do we need Student Learning Outcomes? Dr. Dennis
  - a. Accountability- as public institutions of higher learning we must be able to show that what we claim to be doing for our students, we indeed are accomplishing. We are accountable to the Department of Education, The State of Texas, The Southern Association of Colleges and Schools, our universities and colleges, last but not least to our students.
  - b. Academic Planning-SLOs allow us the opportunity to evaluate in a systematic fashion our curriculum for effectiveness and currentness.
  - c. SLOs may prove valuable metrics in institutional strategic planning and development for facilities, faculty and other resources.
- II. Where do SLOs fit in the institutional academic assessment and planning scheme? Dr. Dennis
  - a. Every academic program should have at least one defined goal. These goals must align with institutional goals and General Education/Core Curriculum SLOs. SACS is now looking for this alignment.
  - b. Each academic goal must have at least one SLO, including strategies of how to accomplish the SLO. Although three SLOs is the average number for each goal, any more than that makes reporting very cumbersome. More about this later.
  - c. Each SLO must have at least one assessment or measurement and an accompanying target of achievement or completion.
  - d. Finally, to complete the circle, there must be a means for developing a response to the achievement or failure to meet the target and drafting an action plan for the future. In the long run this moves toward continuous improvement of curriculum and programs.
- III. What are Student Learning Outcomes SLOs)? Dr. Blackman
  - a. Formerly called Learning Objectives, SLOs identify what a student is expected to know, do, and value.
  - b. Ideally, each course or program should include SLOs from more than one learning domain, cognitive, affective, and psychomotor.
  - c. SLOs must be measurable.
- IV. Characteristics of SLOs. Dr. Balckman
  - a. Should use action verbs from Bloom's Taxonomy with emphasis on higher-order-thinking skills.
  - b. SLOs should not be content specific. Can be used for more than one related course.
  - c. SLOs should be clearly written and not to lengthy. Save the detail for the strategies.
  - d. Included in course syllabus.
  - e. Focus on the big picture, overarching concepts, skills and attitudes.
  - f. Must be measureable.

- V. Example SLOs. Dr. Dennis
  - a. Engineering Physics
  - b. Chemistry
  - c. Other
- VI. Resources
  - a. <a href="http://www.nwlink.com/~donclark/hrd/bloom.html">http://www.nwlink.com/~donclark/hrd/bloom.html</a>