Ohio | **Department of Education**

Student Learning Objective (SLO) Template

This template should be completed while referring to the SLO Template Checklist.

Teacher Name: _____ Content Area and Course(s): STRUCTURAL ENGINEERING Grade Level(s): 9-12 Academic Year: 2012-2013

Please use the guidance provided in addition to this template to develop components of the student learning objective and populate each component in the space below.

Baseline and Trend Data
What information is being used to inform the creation of the SLO and establish the amount of growth that should take place?

Structural engineering students take an end-of-course exam. Students will be given a pre-assessment by the 15th of September, 2012. Skills tests will be given at the start of each unit of study in the areas of concrete, construction, plumbing, and electricity. Students in this course may or may not have had a previous vocational agriculture class, so data will not be avialable on all students. Additionally, each agriculture class is a separate, individualized course. Students who did take a previous vocational agriculture course will have the results of the state end-of-course exam; this data is not very detailed data-it simple states pass or not pass.

All unit areas on the course description are important because all students will be required to take the state end-of-course exam for this course.

Comments:

Identifies sources of information about students (e.g., test scores from prior years, results of pre-assessments): No. SLO should be written after pre-assessment data is reviewed in order to make informed decisions about instruction. No data available due to summer pilot. Add when available and also include any trend data and/or previous year's data if available.

Draws upon trend data, if available: No. It should be stated how these students have performed in the past and how other past groups of students performed.

Summarizes the teacher's analysis of the baseline data by identifying student strengths and weaknesses: No. After baseline data is reviewed, this can be used to draw conclusions about strengths/weaknesses.

Student Population

Which students will be included in this SLO? Include course, grade level, and number of students.

This SLO will cover all students in Structural Engineering in grades 9-12 for _____ students.

Comments

Includes all students in the class covered by the SLO: YES. SLO includes all students. Be sure to put actual number of students in blank space.

Describes the student population and considers any contextual factors that may impact student growth: No. Teacher should provide additional information about the student population and factors that might affect growth such as students on IEPs/Gifted students.

If subgroups are excluded, explain which students, why they are excluded and if they are covered in another SLO: N/A. Strengthen this by indicating that no students were excluded.

Interval of Instruction

What is the duration of the course that the SLO will cover? Include beginning and end dates.

The duration of this course/SLO will encompass August 21, 2012, through May 25, 2013.

Comments:

Matches the length of the course (e.g., quarter, semester, year): Yes. This interval of instruction matches the length of the course. However, the teacher will need to keep in mind that the post assessment will need to be given and analyzed to meet the May 1 deadline established by OTES timeline. This area would also be strengthened by including the frequency of the class (how many times/week, length of class: hours/class, semester/year-long course, etc.).

Standards and Content

What content will the SLO target? To what related standards is the SLO aligned?

This course focuses on key topics in : Structural Engineering.

The target areas will include: safety; design and estimate; site preparation; brick, block, and concrete; metal fabrication; construction; electricity; plumbing systems; laws and regulations.

In addition, this SLO is aligned with the course and unit descriptions of Structural Engineering as provided by Ohio Department of Education.

Comments:

Specifies how the SLO will address applicable standards from the highest ranking of the following: (1) Common Core State Standards, (2) Ohio Academic Content Standards, or (3) national standards put forth by education organizations: Yes, the SLO identifies applicable standards and is aligned with the course and unit descriptions provided by ODE.

Represents the big ideas or domains of the content taught during the interval of instruction: Yes, the SLO includes the big ideas/domains of the content for Structural Engineering.

Identifies core knowledge and skills students are expected to attain as required by the applicable standards: Yes.

Assessment(s)

What assessment(s) will be used to measure student growth for this SLO?

 The assessment used to measure student growth will be a district-developed portfolio. It will include a regionally developed end-of-course exam that matches the rigor and format of the state required end-of -course exam; skills test in the areas of plumbing, construction, concrete, and electricity; a safety practicum; and a safety practicum. (The end-of-course exam was developed as part of a regional SLO grant.) The regionally developed end-of-course exam will be weighted as 10 points in the portfolio. The other 90 points of the portfolio will include: safety practicum, 10 points; performance based tasks in the areas of plumbing, construction, concrete, and electricity, 20 points each. (The same rubrics will be used to score the skills tests as well as the final performance based tasks in the core areas.)

Per their IEPs and 504s, all testing accomodations will be followed for all students will disabilities.

Comments:
Identifies assessments that have been reviewed by content experts to effectively measure course content and reliably measure student learning as intended: Yes, states that the assessments were designed at the district level and includes an end-of-course exam that was developed at a regional level that matches the rigor and format of the state exam.

Selects measures with sufficient "stretch" so that all students may demonstrate learning, or identifies supplemental assessments to cover all ability levels in the course: No. There is not

enough information given about the assessment to determine if it has adequate stretch. Include statements that show the assessment includes measures for lowest group and highest group of students.

Provides a plan for combining assessments if multiple summative assessments are used: Yes. There are multiple assessments being used to measure growth and the narrative indicates points for each assessment to arrive at a final total of 100 possible points.

Follows the guidelines for appropriate assessments: Yes.

Growth Target(s)
Considering all available data and content requirements, what growth target(s) can students be expected to reach?

The growth target for each student will be calculated by 100 - pre-test / 4. 75% or more of the students covered by this SLO will need to achieve their growth target.

Comments:

Ensures all students in the course have a growth target: No. Only 75% of students are expected to achieve their growth target. Adjust growth targets to include all students. Also see "Scoring the Individual SLO" guidance from the Ohio Department of Education.

Uses baseline or pretest data to determine appropriate growth: Yes. Although you use the pre-test in your calculation, it is unclear as to whether or not the mathematical calculation will determine appropriate growth. This will likely need to be reviewed at the end of the SLO process.

Sets developmentally appropriate targets: Yes. Each student's target is based upon their individual score on the pre-assessment.

Creates tiered targets when appropriate so that all students may demonstrate growth: Yes. Each student's target is based upon their pre-assessment score.

Sets ambitious yet attainable targets: Appears so at this time. Again, targets will need to be reviewed at the end of the interval of instruction to determine whether or not the mathematical process to establish targets was appropriate.

Rationale for Growth Target(s)
What is your rationale for setting the above target(s) for student growth within the interval of instruction?

Structural engineering is a hands-on course and students cannot be assessed just by a post-test. A large portion of the post-assessment portfolio will be the performance based tasks in the four core areas. Students in structural engineering are required to take an end-of-course exam, so a portion of the post assessment portfolio will be a regionally developed end-of-course exam. Furthermore, all students need a basic knowledge of safety, so a safety

practicum has been included in the post-assessment portfolio.   All of these items will impact student growth.

By using the formula 100- pre-test/4, lower performing students will be expected to demonstrate more growth in order to meet course expectations. By incorporating the projects in four core areas higher performing students will be stretched.

Comments:

Demonstrates teacher knowledge of students and content: Yes. Rationale demonstrates knowledge of students based on current data and the important course content is identified.

Explains why target is appropriate for the population: Yes. Addresses why targets are appropriate for both the low and high-achieving students.

Addresses observed student needs: Yes. Additional collection and analysis of baseline data could strengthen this area.

Uses data to identify student needs and determine appropriate growth targets: Yes. Data was utilized to identify student needs and to determine appropriate growth targets.

Explains how targets align with broader school and district goals: No. Rationale does not refer to district/school goal(s).

Sets rigorous expectations for students and teacher(s): No. All students are not expected to show growth per the 75% noted above.