STUDENT LEARNING OBJECTIVES

Student Learning Objective (SLO) Template

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

Teacher Name: <u>Mr. E.M. Tiffany</u>	Content Area and Course(s);	Plant and Horticultural Science Course
Grade Level(s): <u>9 - 11</u>	Academic Year: 2013-2014	

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?

The baseline and/or trend data for this course will be determined by the results of a 40 question Pre-Assessment of the Plant and Horticultural Science Course administered by WebXam in early May 2013. A tiered performance chart will be created to reflect student growth expected at the end of this course. Students will take the end of course assessment in the middle of April 2014. The results of the Pre-Assessment given showed that 10 students scored at a level between 10 - 25%, 7 students scored between 26 – 45%, 2 students scored between 46-65% and 1 student scored a 66%. Student performance was low on the following units of the exam: Soil Science, Soilless Systems and Growing Media, Anatomy and Physiology of Plants, Taxonomy, The Growing Environment, Sexual and Asexual Reproduction, Pest Management , Crop Production and Marketing , Business Operation, Communications and Information Management, and Business Leadership and Interpersonal Skills; due to limited knowledge of plant and horticulture science. Students showed a higher level of performance on the business leadership and interpersonal skill unit. The student who scored high on the preassessment comes from a large scale grain production farm and currently is active with a supervised agricultural experience program of 100 acres of corn and soybeans in production.

Student Results	Baseline Score – "Pre-Assessment"
10 Students	10% - 25%
7 Students	26% - 45%
2 Students	46% - 65%
1 Student	66% - 73%

Comments: 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 within the time period?

✓ Identifies sources of information about students (e.g., test scores from prior years, results of pre-assessments)

✓ Draws upon trend data, if available

Summarizes the teacher's analysis of the baseline data by identifying student strengths and weaknesses

Approved by CTE SLO Committee on May 29, 2013.

Note: Comments made by The Office of Educator Equity and Talent and if needed, addressed by the assigned CTE consultant.

1st: Yes, teacher identifies a 40 question pre-assessment aligned to the Plant and Horticultural Science Course administered by WebXam in early May 2013. Individual student test scores are noted and listed in a tiered performance chart or spreadsheet. The written description of the student test score categories and the chart form are not aligned. The teacher should review the data and address the alignment issue to make certain that all growth targets are appropriately established.

2nd: Yes, while past (previous) trend data is not available, it is <u>recommended</u> that this initial year's scores be recorded for future reference. Using a combination of pre-assessment scores and trend data from prior years will refine the establishment of student growth targets each year.

3rd: Yes, teacher provides a quality analysis of the baseline data, identifying student strengths and weaknesses within the context of the students' backgrounds, experiences.

Student Population

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

This Plant and Horticultural Science course is offered both 2nd and 4th Period for an entire year in the Agribusiness and Production Systems Pathway. This elective course is designed for Sophomores through Seniors with Agriculture, Food, and Natural Resources as a pre-requisite course. There are 20 students enrolled in which 18 are sophomores and 2 are juniors. The demographics of the students consist of 8 males and 12 females. Most of the students come from rural homes with a few living within the city limits. The students range from very low socioeconomic backgrounds to a very high socioeconomic background, as well as a diverse educational background in most homes. 10 students live with both parents, 4 come from single parent homes, and 6 have step parents. The ethnicity is mostly homogenous in nature with the exception of one German Foreign Exchange Student. 6 students are on IEP's while all students have a cumulative GPA of above 2.0 with 5 students having a 3.5 or better. All students are engaged in supervised agricultural experiences that range from research, placement, and entreprenuership.

Comments: Student Population

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

✓ Identifies the class or subgroup of students covered by the SLO

Describes the student population and considers any contextual factors that may impact student growth

✓ If subgroups are excluded, explains which students, why they are excluded and if they are covered in another SLO

Approved by CTE SLO Committee on May 29, 2013.

Note: Comments made by The Office of Educator Equity and Talent and if needed, addressed by CTE consultant.

1st: Yes

2nd: Yes, teacher provides a quality description of the student population which includes a comprehensive discussion of the contextual factors that may impact student growth.

3rd: Yes

Interval of Instruction

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

This Plant and Horticultural Science course is a year long course that will run from August 2013 to April 2014. This course is taught for one period lasting 43 minutes daily. The Pre-Assessment for this Plant and Horticultural Science Course will occur before May 2013 and the Post Assessment will occur before the 25th of April 2014.

Comments: Interval of Instruction

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

✓ Matches the length of the course (e.g., quarter, semester, year)

Approved by CTE SLO Committee on May 29, 2013.

1st: Yes

Standards and Content

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

This SLO will align to the Ohio Content Standards for Agricultural and Environmental Systems Career Field and the sample course outline for Plant and Horticultural Science Course. (*Please reference: Agriculture and Environmental Systems Career Field Technical Content Standards for additional details*). This specific SLO meets the following units and the indicators housed in each unit:

- Soil Science
- Soil less Systems and Growing Media
- Anatomy and Physiology of Plants
- Taxonomy
- The Growing Environment
- Sexual and Asexual Reproduction
- Pest Management
- Crop Production and Marketing
- Business Operation
- Communications and Information Management
- Business Leadership and Interpersonal Skills

Comments: Standards and Content

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

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,(3) Ohio Career Technical Content Standards, and (4) national standards put forth by education organizations

Represents the big ideas or domains of the content taught during the interval of instruction

VIdentifies core knowledge and skills students are expected to attain as required by the applicable standards (if the SLO is targeted)

Approved by CTE SLO Committee on May 29, 2013.

Note: Comments made by The Office of Educator Equity and Talent and if needed, addressed by CTE consultant.

1st: Yes, while the teacher indicates alignment to the Ohio Content Standards for Agricultural and Environmental Systems Career Field and lists the overarching standards, a more in-depth description of the standards is <u>recommended</u>. Explain how the Ohio Content Standards and outline for Plant and Horticultural Science Course are interdependent for students within the interval of instruction.

2nd: Yes, the SLO includes the big ideas/domains of the content for Agricultural and Environmental Systems and Plant and Horticultural Science.

3rd: N/A, SLO is not targeted.

Assessment(s)

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

The Assessment used to measure student growth in this Plant and Horticultural Science Course is the end of course assessment administered by WebXam. This end of course assessment was created by secondary horticulture instructors and validated by Ohio's post secondary institutions. All students on IEP's will receive all necessary accommodations and/or modifications per their IEP when taking the online assessment. Student growth expectations for this SLO will be based on the pre-assessment.

Comments: Assessment(s)

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

✓ Identifies assessments that have been reviewed by content experts to effectively measure course content and reliably measure student learning as intended

Selects measures with sufficient "stretch" so that all students may demonstrate learning, or identifies supplemental assessments to cover all ability levels in the course

✓ Provides a plan for combining assessments if multiple summative assessments are used

✓ Follows the guidelines for appropriate assessments

Approved by CTE SLO Committee on May 29, 2013.

Note: Comments made by The Office of Educator Equity and Talent and if needed, addressed by CTE consultant.

1st: Yes.

2nd: Yes.

3rd: N/A

4th: Yes.

Growth Target(s)

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

The Web Exam benchmark score for the Plant and Horticultural Science Course is 54% and the advanced benchmark score i	s 78%. I	
have set tiered growth targets for all of my students.		

Student Results	Baseline Score "Pre-Assessment"	Target Score "Post-Assessment"
10 Students	10% - 25%	55%
7 Students	26% - 45%	65%
2 Students	46% - 65%	78%
1 Student	66% - 73%	90%

Comments: Growth Target(s)

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

✓All students in the class have a growth target in at least one SLO

✓ Uses baseline or pretest data to determine appropriate growth

✓ Sets developmentally appropriate targets

Creates tiered targets when appropriate so that all students may demonstrate growth

✓ Sets ambitious yet attainable targets

Approved by CTE SLO Committee on May 29, 2013.

Note: Comments made by The Office of Educator Equity and Talent and if needed, addressed by CTE consultant.

1st: Yes

2nd: Yes

3rd: **Yes**, as established by the WebXam benchmark score for the Plant and Horticultural Science Course being 54% and the advanced benchmark score of 78%. All students must meet the minimum benchmark score.

 4^{th} : Yes, teacher <u>may want</u> to consider setting the growth targets in combination with a minimum growth level in each tier for individual students. By doing such, students scoring at the top of a range must grow more than just a few percentage points to attain the standard, e.g. pre-test score range = 46% - 65%; then target = 78% or increase of 20%, whichever is greater. With this addition a student scoring 48% would need to grow 30% to meet the 78% standard and a student scoring 64% would need to grow to 84% versus only a 14% gain to 78%. This format takes into account the students who may fall at the very top or bottom of each range. 5^{th} : Yes

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

Demonstrates Teacher Knowledge of Students and Content

After studying student trends and baseline data for this course, along with the students pre-assessment scores, I have weighed all factors aligned with this course and set targets for each student, which will measure their growth in the course and content material.

Explains Why Target is Appropriate for the Population

All students individual needs outlined above were considered in their student growth targets. This course allows for not only cognative learning, but with the use of Performance Based Measures and lessons, all students are able to demonstrate growth through different classroon instruction and assessment methods. The Minimum Target Score shows that all students are capable of reaching the Benchmark Score for the Assessment.

Addresses Observed Student Needs

The students with the lower baseline scores can show considerable growth, even if they do not reach the benchmark score set by the State of Ohio. Those students who do not reach the Benchmark Score on the Post-Assessment have the opportunity to re-test the following year, if they so choose, to increase their score and possibly gain college credit through articulations set by the Ohio Board of Regents.

Uses Data to Identify Student Needs and Determine Appropriate Growth Targets

After studying student trends and baseline data for this course, along with the students pre-assessment scores, I have weighed all factors aligned with this course and set targets for each student, which will measure their growth in the course and content material. All students individual needs outlined above were considered in their student growth targets.

Explains How Targets Align with Broader School and District Goals

The above growth targets are reflective upon goals that are reasonable and reachable for all students while maintaining the misson and goals set by this school district and our Agricultural Education Program.

Sets Rigorous Expectations for Students and Teacher(s)

The standards that are used for this course were developed to allow students to prepare for either higher education and/or the work force as outlined by Ohio's Secondary and Post-Secondary Institutions along with our Industry Partners. The students with the lower baseline scores can show considerable growth, even if they do not reach the benchmark score set by the State of Ohio. Students have the opportunity to re-test the following year if they so choose to increase their score and possibly gain college credit through articulations set by the Ohio Board of Regents.

Comments: Rationale for Growth Target(s)	
What is your rationale for setting the target(s) for student growth within the interval of instruction?	
Demonstrates teacher knowledge of students and content	
Explains why target is appropriate for the population	
Addresses observed student needs	
Uses data to identify student needs and determine appropriate growth targets	
Explains how targets align with broader school and district goals	
Sets rigorous expectations for students and teacher(s)	
Approved by CTE SLO Committee on May 29, 2013.	
Note: Comments made by The Office of Educator Equity and Talent and if needed, addressed by CTE consultant.	
1 st : Yes, Well-written SLO that displays teacher knowledge of students and content.	
2 nd : Yes	
3 rd : Yes	
4 th : Yes	
5 ^w : Yes	
6": Yes	