

Competency Area: **CRITICAL ANALYSIS AND LOGICAL THINKING** (Goal: Students will be able to organize, interpret, and evaluate evidence and ideas within and across disciplines; draw reasoned inferences and defensible conclusions; and solve problems and make decisions based on analytical processes.)

Faculty submitting the Learning Outcomes: Christopher Tuccio

Date: 5/22/13

[Instructions: *Please match the Learning Outcomes in the left hand column to those of the course you are submitting for Gen Ed approval. List the corresponding course outcomes in the right hand column to indicate a match.***]**

BOR TAP's Learning Outcomes	Corresponding Outcomes for Course Named Above
1. Identifying arguments: Identify issues, evidence and reasoning processes; distinguish facts from opinion; recognize various types of arguments	<ul style="list-style-type: none">• Apply proper cultural practice during laboratory work to cultivate a marketable crop. This includes the research and identification of reliable information from primary sources on optimum crop growth.
2. Formulating arguments: Formulate good arguments, including a significant focus on inductive reasoning.	<ul style="list-style-type: none">• Prepare a written and oral presentation of their crop and its context within the greenhouse industry highlighting the change of crop growth over time and the associated irrigation, fertilization, and other cultural practices which may have influenced this growth.
3. Analysis: Break subject matter into components and identify their interrelations to ascertain the defining features of the work and their contributions to the whole.	<ul style="list-style-type: none">• Complete a weekly laboratory sheet of plant growth for individual crops which requires the measurements of lamina size, stem elongation and width, moisture, and germination rates where applicable.• Prepare a written and oral presentation of their crop and its context within the greenhouse industry highlighting the change of crop growth over time and the associated irrigation, fertilization, and other cultural practices which may have influenced this growth.

4. Evaluation: Identify assumptions, assessing the quality and reliability of sources of evidence, and demonstrating knowledge of the criteria for evaluating the success of each kind of inference.	<ul style="list-style-type: none"> • Plan, evaluate, and revise a greenhouse crop schedule for the following fall season utilizing the knowledge gained throughout the semester. Students will call upon the scientific laboratory work they completed in the greenhouse to rate the individual crop's success or failure. • Evaluate and demonstrate use of the various ventilation, cooling/heating, and irrigation methods of a commercial greenhouse.
5. Synthesis: Draw together disparate claims into a coherent whole in order to arrive at well-reasoned and well-supported inferences that can be justified as a conclusion.	<ul style="list-style-type: none"> • Plan, evaluate, and revise a greenhouse crop schedule for the following fall season utilizing the knowledge gained throughout the semester. Students will call upon the scientific laboratory work they completed in the greenhouse to rate the individual crop's success or failure.
	<p><i>Additional Outcomes</i></p> <ul style="list-style-type: none"> • Design and apply a creative marketing strategy for the spring greenhouse plant sale. • Identify and use current EnviroStep computer greenhouse software for temperature control within a commercial greenhouse. • Evaluate and demonstrate use of the various ventilation, cooling/heating, and irrigation methods of a commercial greenhouse.