Course Title & Number: HRT 222: Greenhouse Management 1

Competency Area: **SCIENTIFIC REASONING** (Goal: Students will become familiar with science as a method of inquiry. Students will develop a habit of mind that uses quantitative skills to solve problems and make informed decisions.)

Faculty submitting the Learning Outcomes: Christopher Tuccio ***Date***: 12/6/12

[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. Explain the methods of scientific inquiry that lead to the acquisition of knowledge. Such methods include observations, testable hypotheses, logical inferences, experimental design, data acquisition, interpretation, and reproducible outcomes.	Prepare a written and oral presentation of their crop and its context within the greenhouse industry, specifically highlighting the change of crop growth over time and the associated irrigation, fertilization, and other cultural practices which may have influenced this growth.
2. Apply scientific methods to investigate real-world phenomena, and routine and novel problems. This includes data acquisition and evaluation, and prediction.	Apply proper cultural practice during laboratory work to cultivate a marketable crop.
3. Represent scientific data symbolically, graphically, numerically, and verbally.	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.
4. Interpret scientific information and draw logical references from	

representations such as formulas, equations, graphs, tables, and schematics.	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.
5. Evaluate the results obtained from scientific methods for accuracy and/or reasonableness.	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.
	Additional Outcomes Analyze and troubleshoot the basic components of a commercial greenhouse 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.