Standardized Assessment Measures for the Ferris Learning Outcomes

3) Pre-test / Post-test ....[Examination]

DESCRIPTION: An assessment instrument based upon the primary course materials is given to all students near the beginning and end of instruction. The number of student scores meeting or exceeding a threshold score of 70% correct is determined for each time point. The average class score at each time point is calculated and compared using a paired t-test. Cohen's d is used to determine the magnitude of any effect sizes found. The raw student scores on these tests are recorded using the PREPOST data workbook.

SCORING: The student post-test scores are then transformed into rubric scores as indicated in the following scheme:

0) Deficient	0%	$\leq$	post-test	<	40% correct
1) Beginning	40%	$\leq$	post-test	<	55% correct
2) Progressing	55%	$\leq$	post-test	<	70% correct
3) Proficient	70%	$\leq$	post-test	<	85% correct
4) Advanced	85%	$\leq$	post-test	$\leq$	100% correct

ANALYSIS: The number of student scores meeting or exceeding a threshold rubric score of 3.0 is determined for each time point. The average and 95% confidence interval of the class rubric scores is calculated and classified as indicated in the following scheme:

0) Deficient	0.0	$\leq$	class average	<	1.0
1) Beginning	1.0	$\leq$	class average	<	1.8
2) Progressing	1.8	$\leq$	class average	<	2.6
3) Proficient	2.6	$\leq$	class average	<	3.4
4) Advanced	3.4	$\leq$	class average	$\leq$	4.0

A one factor, two-tailed t-test is used to evaluate the statistical significance of differences between class average and the threshold score of 2.6 points. Cohen's d is use to determine the magnitude of any effect sizes found.

CRITERION LEVELING: The expectations of the criteria of success depend upon the level of the course assessed. The target thresholds for each level are defined as follows:

100-level
  50% of individuals should be proficient or better (3 on the rubric) by the end of instruction
  The class average should fall within the progressing level (threshold $\geq$ 1.8)
200-level
  60% of the individuals should be proficient or better (3 on the rubric) by the end of instruction
  The class average should fall within the proficient level (threshold $\geq$ 2.6)
300-level
  70% of individuals should be proficient or better (3 on the rubric) by the end of instruction
  The class average should fall within the proficient level (threshold $\geq$ 2.6)
400-level
  80% of individuals should be proficient or better (3 on the rubric) by the end of instruction
  The class average should fall within the proficient level (threshold $\geq$ 2.6)