

Standardized Assessment Measures for the Ferris Learning Outcomes

9) Laboratory report[Product]

DESCRIPTION: Students create written or oral reports pertaining to observations and analyses made during a field or laboratory experience. The FLO rubric is used to evaluate the structure and content of the reports. The student rubric scores from the assignment are recorded using the RUBRIC workbook.

SCORING: These reports are directly evaluated using a four-level scoring rubric.

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

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

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 used 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 ≥ 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 ≥ 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 ≥ 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 ≥ 2.6)