**Individual Direct Assessments Rubric Worksheets**

**Theory**

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| Rubric | Theory |
| Category of Assessment | Inadequate | Needs Improvement | Adequate | Excellent |
| Syntax | The use of mathematical notation cannot be understood. | The intended meaning can be discerned from the proof, but the use of mathematical notation is incorrect in many places. | The intended meaning is clear and there are only a few places where the mathematical notation is used incorrectly. | The proof is clearly written with correct usage of mathematical notation. |
| Semantics | The student has not demonstrated an understanding of the structure of a proof by (contradiction/ induction). | The student seems to understand how a proof by induction (contradiction) is supposed to look, but has difficulty fitting the structure to the specific problem. | The student has demonstrated that they understand the logic underlying an induction (contradiction) proof but there are some errors. | The student has demonstrated that they understand the logic underlying an proof by induction. |
| Logic | The student's proof fails to address the statement of the theorem. | The student understands what needs to be proven, but cannot find adequate statements (e.g., an appropriate induction hypothesis) which would logically prove the statement. | The student understands the statement of the theorem and how to tailor an induction proof to the problem instance, but fails to complete the argument to form a correct proof. | The student provides a logically sound proof. |

**Assessment**

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| Rubric  | Theory |
| Category of Assessment | Inadequate | Needs Improvement | Adequate | Excellent |
| Syntax |  |  |  |  |
| Semantics |  |  |  |  |
| Logic |  |  |  |  |

If 75% of the students achieve levels c or better, then they have met the ABET/HLC performance standard for the course.

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| Summary of Assessment**Improvement** |

Assessed By: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_