**Individual Direct Assessments Rubric Worksheets**

**Algorithms**

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| Rubric | Algorithms | | | |
| Category of Assessment | Inadequate | Needs Improvement | Adequate | Excellent |
| Syntax | The use of notational syntax cannot be understood. | The intended meaning can be discerned from the notation, but the use of the notation is incorrect in many places.. | The intended meaning is clear and there are only a few places where the notational syntax is used incorrectly. | The notation is clear and syntactically correct. |
| Mechanics (Understanding of How the Algorithm Works) | The student has not demonstrated an understanding of the algorithm mechanics. | The student has somewhat of a notion of how the algorithm works, but has difficulty understanding its structure and interactions. | The student has demonstrated an understanding of the algorithm mechanics, but still makes some errors. | The student has demonstrated a thorough understanding of the algorithm mechanics. |
| Behavior (Understanding the Algorithm’s Behavior in the Context of a Specific Problem Space and a Specific Parameter Space) | The student has not demonstrated an understanding of the algorithm’s behavior. | The student has somewhat of a notion of how the algorithm behaves, but insufficient to effectively employ the algorithm for problem solving. | The student has demonstrated an understanding of the algorithm’s behavior, but still misses some of the subtleties. | The student has demonstrated a thorough understanding of the algorithm’s behavior. |
| Application (Understanding how to appropriately match algorithms and problems in order to obtain effective application) | The student has not demonstrated an understanding of how to match algorithms and problems. | The student has somewhat of a notion of how to match algorithms and problems, but insufficient for effective application. | The student has demonstrated an understanding of how to match algorithms and problems, but still misses some of the subtleties. | The student has demonstrated a thorough understanding of how to match algorithms and problems. |
| Experimental Analysis (Understanding how to effectively design algorithmic experiments and perform appropriate (statistical) analysis. | The student has not demonstrated an understanding of how to design experiments and perform analysis. | The student has somewhat of a notion of how to design experiments or perform analysis, but either not both or neither effectively. | The student has demonstrated an understanding of how to design experiments and perform analysis, but still misses some of the subtleties. | The student has demonstrated a thorough understanding of how designs experiments and perform analysis. |

**Assessment**

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| Rubric | Algorithms | | | |
| Category of Assessment | Inadequate | Needs Improvement | Adequate | Excellent |
| Syntax |  |  |  |  |
| Mechanics |  |  |  |  |
| Behavior |  |  |  |  |
| Application |  |  |  |  |
| Experimental Analysis |  |  |  |  |

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: \_\_\_\_\_\_\_\_\_\_\_\_\_