**M.S. in Natural Sciences Scoring Rubric 2**

**Student Learning Outcome 2: Problem Solving**

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| --- | --- | --- |
| Student:  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Artifact(s) / Activity Evaluated: |
|  |  |  |
| Date: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  |  |  |
| Evaluator: | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |

Items in students’ knowledge base depend on the selected program of study and stated objectives as approved by their graduate faculty committee.

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| --- | --- | --- | --- | --- |
| **Item** | **N/A** | **Unacceptable** | **Acceptable** | **Superior** |
| Demonstrates ability to combine mathematical and / or scientific principles to formulate models of systems pertinent to area of study. |  |  |  |  |
| Applies appropriate mathematical tools correctly to solve problems. |  |  |  |  |
| Applies appropriate statistical tools correctly to analyze data. |  |  |  |  |
| Demonstrates understanding of the limitations of mathematical models as representations of systems. |  |  |  |  |
| Formulates an experimental plan for gathering data to attain objective  |  |  |  |  |
| Develops and implements logical experimental procedures. |  |  |  |  |
| Collects, documents, analyzes and interprets data carefully and correctly using appropriate theory. |  |  |  |  |
| Awareness of measurement error and ability to account for it statistically. |  |  |  |  |

Elaboration of Evaluations –

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| --- | --- |
| **N/A:** | No attempt or no effort to accomplish the task. |
| **Unacceptable:**  | Student’s level of understanding has too many or too serious flaws. Some or all of the work needs to be redone to be acceptable. |
| **Acceptable:** | Student shows understanding. However, there are flaws that are evidence of some weaknesses. |
| **Superior:** | Student shows substantial understanding without obvious weaknesses. |

Comments: