Utica University General Education Program: Goal 4 Scientific Inquiry Rubric

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| LEARNING OBJECTIVES | BEGINNING = 1 | DEVELOPING = 2 | PROFICIENT =3 |
| Students will demonstrate understanding of the nature of science and the scientific process. | * Empirical, * Subject to change with new evidence, * Distinction btw hypothesis & theory * Distinction btw observation & inference, * Role of creativity, * Contextual & cultural and myth of objectivity, * Role of peer-review   Meets 1 of 7. | * Empirical, * Subject to change with new evidence, * Distinction btw hypothesis & theory * Distinction btw observation & inference, * Role of creativity, * Contextual & cultural and myth of objectivity, * Role of peer-review   Meets 3 of 7. | * Empirical, * Subject to change with new evidence, * Distinction btw hypothesis & theory * Distinction btw observation & inference, * Role of creativity, * Contextual & cultural and myth of objectivity, * Role of peer-review   Meets 5 of 7. |
| Students will demonstrate the ability to apply the processes of evidence-based scientific inquiry. | * Making observations * Developing testable hypotheses * Testing hypotheses * Analyzing/organizing data * Presenting data * Modifying hypotheses if necessary * Supporting conclusions   Meets 1 of 7. | * Making observations * Developing testable hypotheses * Testing hypotheses * Analyzing/organizing data * Presenting data * Modifying hypotheses if necessary * Supporting conclusions   Meets 3 of 7. | * Making observations * Developing testable hypotheses * Testing hypotheses * Analyzing/organizing data * Presenting data * Modifying hypotheses if necessary * Supporting conclusions   Meets 5 of 7. |
| Students will demonstrate an understanding of the interconnectedness of processes within the natural world and their broader impacts. | (Defined by individual natural science disciplines.) | (Defined by individual natural science disciplines.) | Content-specific learning objectives defined by individual natural science disciplines.  Should show relationships among natural science disciplines or everyday life as defined by natural science disciplinary departments. |
| Students will demonstrate an understanding of content within a specific natural science context. | (Defined by individual natural science disciplines.) | (Defined by individual natural science disciplines.) | Content-specific learning objectives defined by individual natural science disciplines… |