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…  |