STEM Rubric Design

**STEM Definition:** The NSF definition of STEM includes biological sciences (except medicine and other clinical fields), physical sciences (physics, chemistry, astronomy, and materials science), mathematical sciences, computer and information sciences, geosciences, engineering, technology areas associated with the preceding disciplines and the social and behavioral sciences (psychology, economics, sociology, and political science).

**Rubric Objective:** The objective is to provide principles of rubric design and evaluation criteria that can be adapted for evaluating programs, courses, and performance of undergraduate and graduate students in courses and research to identify strengths and weaknesses to make improvements.

Our mission in STEM Strategies is to effectively communicate, advocate, and promote equitable resources and opportunities for students and faculty.

**Principles of Rubric Design:**

1. Determine the evaluation criteria (logic model).
2. Develop a rating scale (example: 0 to 5).
3. Develop indicators of quality (for example: poor to excellent).
4. Test the evaluation effectiveness of the rubric.

The contents are provided in modules for ease of reference and adaptation. Please contact us at STEM Strategies for discussions of rubric design.

**Rubric Modules:**

1. STEM Rubric Design.
2. STEM Rubric Logic Model.
3. STEM Rubric.
5. Example: VIP Student Research Evaluation.
6. STEM Rubric References and Tools.