Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans

SLO 1: Critical Thinking
Students will demonstrate critical thinking skills by applying basic mathematical principles to the solution of real-world examples. A quiz consisting of several (4) parts will be given to the students as part of their normal quiz grade. The quiz will require both an understanding of fundamental concepts (C. T.), as well as a calculation requiring a command of the basic mathematics of problems solving (Q. T.). The quiz will then be assessed for each student with a rubric for Quantitative Thinking skills.

Relevant Associations:

- Standard Associations
  - New Core Component Areas
    - 2 Life & Physical Science (L & PS)
  - New Core Objectives
    - 1 Critical Thinking (CT)

Related Measures

M 1: Critical Thinking Measure
Critical Thinking Measure.

A quiz consisting of several (4) parts will be given to the students as part of their normal quiz grade. The quiz will require both an understanding of fundamental concepts (C. T.), as well as a calculation requiring a command of the basic mathematics of problems solving (Q. T.). The quiz will then be assessed for each student with a rubric for Quantitative Thinking skills.

Source of Evidence: Writing exam to assure certain proficiency level

Target:
We expect students to obtain at least 75% of the points obtainable from the Rubric.

SLO 2: Quantitative Thinking
Students will demonstrate quantitative thinking skills by applying basic mathematical principles to the solution of real-world examples. A quiz consisting of several (4) parts will be given to the students as part of their normal quiz grade. The quiz will require both an understanding of fundamental concepts (C. T.), as well as a calculation requiring a command of the basic mathematics of problems solving (Q. T.). The quiz will then be assessed for each student with a rubric for Quantitative Thinking skills.

Relevant Associations:

- Standard Associations
  - New Core Component Areas
    - 2 Life & Physical Science (L & PS)
  - New Core Objectives
    - 3 Empirical & Quantitative Skills (EQS)

Related Measures

M 2: Quantitative Thinking Measure
Quantitative Thinking Measure.

A quiz consisting of several (4) parts will be given to the students as part of their normal quiz grade. The quiz will require both an understanding of fundamental concepts (C. T.), as well as a calculation requiring a command of the basic mathematics of problems solving (Q. T.). The quiz will then be assessed for each student with a rubric for Quantitative Thinking skills.

Source of Evidence: Writing exam to assure certain proficiency level

Target:
We expect students to obtain at least 75% of the points obtainable from the Rubric.

SLO 3: Teamwork
Students will demonstrate the ability to work with others in a common effort to achieve an outcome through cooperation and teamwork in laboratory exercises.

Relevant Associations:

- Standard Associations
  - New Core Component Areas
    - 2 Life & Physical Science (L & PS)
  - New Core Objectives
    - 4 Teamwork (TW)

Related Measures

M 3: Teamwork Measure
Teamwork Measure.
A laboratory exercise will be given to the students as part of their normal laboratory grade. The laboratory will require both teamwork, as well as communication through a written report.

The Laboratory report will then be assessed for each student with an AACU rubrics for both Teamwork and Communication.

Source of Evidence: Project, either individual or group

Target:
We expect students to obtain at least 75% of the points obtainable from the Rubric.

SLO 4: Communication
Students will demonstrate communication skills by reporting the process and results of laboratory exercise in a written laboratory report.

Relevant Associations:

Standard Associations
New Core Component Areas
2 Life & Physical Science (L & PS)
New Core Objectives
2 Communication (COM)

Related Measures

M 4: Communication Measure
Communication Measure.

A laboratory exercise will be given to the students as part of their normal laboratory grade. The laboratory will require both teamwork, as well as communication through a written report.

The Laboratory report will then be assessed for each student with an AACU rubrics for both Teamwork and Communication.

Source of Evidence: Written assignment(s), usually scored by a rubric

Target:
We expect students to obtain at least 75% of the points obtainable from the Rubric.