2018 – 19/2019 – 2020 General Education Assessment Plan

Department: Natural & Computer Sciences **Date:9/05/18**
General Education Committee has selected the following area for the 2018-2019 & 2019-2020 assessment cycles: **Analysis**: to recognize, understand, critically evaluate and synthesize the components of a topic using methods appropriate to the discipline.
General Education Committee: Background: What factors caused the committee to choose this particular assessment outcome? The committee selected this outcome based upon the emphasis on developing higher –order thinking in CUNE graduates.
Department: *What student outcome will the department assess?* Students can apply scientific analysis to "real world" situations to arrive at an appropriate response.
Department: *What specific question(s) are you attempting to answer through assessing this student outcome? What are you trying to find out? There may be more than one question, but no more than three.* 1. Can students identify the key idea or concept underlying a problem? 2. Can students correctly identify the knowns and unknowns of the problem? 3. Can students apply appropriate methods to solve a problem?

Methodology:
   1. *OBJECT* - What data (i.e. artifact, exam score, detailed description of assignment) will be collected?* Exam questions from Phys 109 and Chem 115 regarding a specific analytical problem (probably energy conservation for Phys 109 and ideal gas law for Chem 115); homework assignments from Bio 110 (regarding analysis of environmental situation) and CS 131 (a program involving an algorithm to determine a number of interactions among a group).
      a. *How does this data address the assessment question?* Each artifact will be chosen to represent a relatively "real world" situation, where students need to choose from among a number of possible ways of analyzing the situation and in which students need to determine which information is useful and in what way. Each artifact will have a unique appropriate way to analyze the situation, so that it can be determined how well students have learned to apply scientific analysis.
        i. *Include/attach a description/example of assessment tool to be used.*
   2. *How will data be collected?* Exams and homework assignments will be collected as usual in class, scanned without identifying marks, and distributed to the department faculty.

Analysis of Artifacts: PERFORMANCE CRITERIA* - Discuss :
   1) How the artifacts will be analyzed (attach rubrics/scoring tools if used): Artifacts will be assessed using a 5-point Likert scale (attached), which assigns a value to whether students can (1) properly identify the underlying concept, (2) identify the knowns and unknowns, and (3) apply appropriate methods to solve the problem.
   2) How you will know if it is good (i.e. score required by % of students): If at least 80% of students score at least a 9 (out of 15) then we will be entirely successful. If fewer than 50% score above a 9 (or if more than 50% score below a 6) then we are very unsuccessful. If at least 65% of students score above a 9 and fewer than 40% score a 6 or below then we are doing fairly well.

Submitted by: Robert Hermann Date: 9/21/18   Assessment Committee Reviewed (Date): 10/2/18 **Department Chair notified of approval/or additional action needed: 10/11/18**