

2020 – 21 Departmental Assessment Plan

Department/Program/Unit: Natural & Computer Sciences	Date: 10/6/20
Related: University Goals/Outcomes: Knowledge Select Select Select	
Members involved with development of Plan: Rob Hermann, Brent Royuk, Kent Einspahr, Marcus Gubayni, John Jurchen, Kristy Jurchen, Kregg Einspahr, Tim Huntington, Kyle Johnson, Connie Callahan, Jen Freund, Dennis Brink	
Departmental/Program/Unit Student Outcome: <i>What student outcome from the departmental matrix will be assessed? (It is suggested that you cut and paste directly from the matrix. Outcomes should represent the absolute priorities for learning- students must be able to do [this] when they finish our program).</i> State as follows: Students should be able to [action verb] [something]. The department has as one of its goals: Knowledge: to gain a basic level of knowledge in the areas of physics, chemistry, and biology (as well as necessary math concepts), and an advanced level of knowledge in the student's major area(s) of study. In order to achieve this goal, the department will assess the following learning outcome: Students will be able to demonstrate an appropriate level of knowledge of important facts, concepts, or processes in the scientific area	
Background: <i>What factors caused you to choose this particular assessment outcome? If you chose this outcome because of a perceived problem, please explain.</i> For the past several years the department has assessed the analysis component of its goals and outcomes, namely, the students' ability to make appropriate inferences and interpretations of scientific data - basically, to use standard techniques like statistics to interpret data. The department had been achieving its goals in this area and so decided to assess a different goal. Since the General Education goal aligns with one of the departmental goal, it was decided to assess that goal.	
Question: <i>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.)</i> Do students know important facts, concepts, and processes of the discipline at a sufficient level to correctly describe them?	
Methodology: <ol style="list-style-type: none">1. OBJECT* - <i>What data (i.e. artifact, exam score, detailed description of assignment) will be collected?</i> Exam questions from AGRI 210, Bio 344, Bio 345, Chem 325, CS 331, and Phys 383 will be collected.<ol style="list-style-type: none">a. <i>How does this data address the assessment question?</i> Questions will be selected that ask the students to show a clear knowledge of important facts, ideas, or processes for the field.<ol style="list-style-type: none">i. <i>Include/attach a description/example of assessment tool to be used.</i>2. <i>How will data be collected?</i> Questions will be compiled by the instructor after tests are completed and identifying marks will be removed.	
Analysis of Artifacts: PERFORMANCE CRITERIA* - Discuss: <ol style="list-style-type: none">1) <i>How the artifacts will be analyzed (attach rubrics/scoring tools if used):</i> Artifacts will be assessed using a 5-point Likert scale (attached), which assigns a value to whether students can demonstrate complete and correct knowledge.2) <i>How you will know if it is good (i.e. score required by % of students):</i> If at least 80% of students score at least a 3 or above, then we can say that most students generally have basic knowledge of the concept. We would prefer that at least 80% score a 4 or above to show that they have a fairly complete and accurate knowledge of the concept.	
Submitted by: Robert Hermann Date: 10/6/20 Assessment Committee Reviewed (Date): 10/20/2020	
Department Chair notified of approval/or additional action needed: Approved 10/20/2020	