

2021 – 22 Departmental Assessment Plan

Department/Program/Unit: Natural & Computer Sciences	Date: 8/16/21
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, Kim Clark	
<p>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></p> <p>State as follows: Students should be able to [action verb] [something].</p> <p>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</p>	
<p>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></p> <p>Since the General Education goal aligns with one of the departmental goal, it was decided to assess that goal. In 2020-21 the department assessed this goal with limited success. We want to assess the same question again in order to determine if last year was a result of a particular set of circumstances (eg. particular students, COVID protocols in class, etc) or if there is a more systemic issue in our expectations for students learning of knowledge and how we teach it.</p>	
<p>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></p> <p>Do students know important facts, concepts, and processes of the discipline at a sufficient level to correctly describe them?</p>	
<p>Methodology:</p> <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 355, CS 331, and Phys 381 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. 	
<p>Analysis of Artifacts: PERFORMANCE CRITERIA* - Discuss:</p> <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: 8/16/21 Assessment Committee Reviewed (Date): 11/2/21	
Department Chair notified of approval/or additional action needed: 11/2/21	