#3. Assessment Plan: Alternative Delivery - Student Outcomes

To be completed by course instructors or program directors for 3 credit courses that are offered in **BOTH** the traditional (15 week face-to-face) format and in an alternative format (dual credit, online, and condensed time formats). Submit via email to the Assessment Committee Chair.

Department: Natural Sciences **Date: 11/30/2016** **Course(s): Bio 111**
Alternative Format(s) – select as many as are applicable:

Dual Credit **Select** **Select** **Select** **Select** **Select**

Members (**must include more than course instructor only**) **involved with the development of this Assessment Plan: Jennifer Fruend, Robert Hermann**

Course Requirements:

1. Each alternative delivery course meets credit hour requirements? (135 clock hours).
   a. **Attach: Credit Hour Audit - traditional format**
   b. **Attach: Credit Hour Audit for each alternative format**. (Dual credit – must attach one for each instructor).
2. Course requirements for all formats are comparable.
   a. **Attach: Course Guide - traditional format.**
   b. **Attach: Course Guide for each alternative format.** (Dual credit – must attach one for each instructor).

Student Outcome:

1. *What student outcome will be assessed? Students will understand fundamental concepts and basic knowledge of the process of science and undergraduate introductory molecular and cell biology (which includes fundamental concepts in cell biology, biochemistry, genetics, and molecular biology).*
2. **State as follows: Students should be able to [action verb] [something**]. Students should be able to demonstrate an understanding of a selection of fundamental concepts and basic knowledge of the process of science and introductory molecular and cell biology.

Question: *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.)* Do students understand basic concepts of the process of science, cell biology, biochemistry, genetics, and molecular biology, and can they apply their knowledge of these topics?

Methodology

1. **Student Outcome** - *OBJECT**
   a. *What student artifact from the traditional course will be used to assess the outcome*? A multiple choice concept inventory developed and validated by experts in Biology Education Research.
      i. *How will the artifact be collected?* As questions on the final exam.
   b. *What student artifact from the alternative course(s) will be used to assess the outcome?* A multiple choice concept inventory developed and validated by experts in Biology Education Research.
      i. *How will the artifact be collected?* As questions on the final exam.

Analysis of Artifacts:

1) **Student Outcome:** *PERFORMANCE CRITERIA**
   a. *How will the artifacts be analyzed (attach rubrics/scoring tools if used):*
      i. Traditional course: The multiple choice questions will be graded.
      ii. Alternative course(s) (note SAME if the same as the traditional course): SAME

2) ***COMPARABILITY*** - ***How you will determine if the outcomes of the two are comparable?*** (For example – there will not be a statistically significant difference among the mean final exam scores). A t-test will be used to assess whether the means between the traditional and dual credit classes are statistically different.

Submitted by: Kyle B. Johnson **Date: 11/30/2016**

Reviewed by the Assessment Committee (Date): 12/1/16
Submitter notified/additional action: na Submitter notified of approval: 12/1/16