



Assessment Reporting

Degree/Cert/Program

Delivery Mode:

Submitted by:

Participating Faculty and Staff:

Outcome Assessed:

Courses Used:

**Course or degree outcomes to be added/changed
/removed:**

Course Level Assessments:

Findings/Results:

Biology, Associate of Science for Transfer

(Choose one)

R-EUREKA\Diqui-LaPenta on 4/9/2019

Diqui LaPenta, Karen Reiss, Wendy Riggs, Maria Friedman, Christopher Callahan

4 - Explain the mechanisms of gene expression and regulation, and how they direct cellular and organismal processes.

BIOL-3 Fundamental Cell Biology,
BIOL-4 Zoology
BIOL-5 Botany

0 courses were not successful at conveying this outcome.

1 course was generally successful at conveying this outcome.

2 courses were definitely successful at conveying this outcome to most of the students.

0 courses were not included in this report.

Diqui's comments: As these are all biology students, these data seem much more relevant to program assessment than when only courses in other required subjects are the only ones mapped to an outcome.

What stands out to me is that students in BIOL3 that has a CHEM pre-requisite have better success rates than students in BIOL4 or BIOL5 that have no pre-requisites. Student numbers are low with only 20 students in BIOL3, but only 10% did not meet expectations on this outcome. On the other hand nearly 19% of BIOL4 students and 41% of BIOL5 students did not meet expectations on this outcome.

The Biology faculty have met to discuss creating a required sequence for the BIOL AST biology courses. Requiring students to take BIOL3 (Cell bio) before BIOL4 (Zoology) or BIOL5 (botany) would accomplish a couple of things. First, they would have a foundation in Chemistry that they'll need in all bio courses. Second, they will understand basic cell function that is also required in all bio courses. Third, this will allow Zoology and Botany faculty to actually teach *those* subjects, rather than spending a large portion of the class teaching basic cell biology. (Should this last paragraph be turned into a Degree-level open loop?)

Actions/Changes To Be Implemented:**Course Mapping:**

Three Course Level Outcomes are mapped to this Program Level Outcome, and all three have been assessed within the last two years. The number of assessments is sufficient to evaluate this Degree outcome, because the assessments cover all three of the Biology core courses. Each Course Level Outcome is the single outcome that maps to this Degree outcome, and each class assesses that outcome differently. Thus, with just three assessments, we cover a wide range of topics addressing this Degree outcome.