

UNIVERSITY OF ARKANSAS PULASKI TECH

Assessment Report: 2019-2020:

Botany 2302



Assessment Report



1. Name of individual compiling report:	Paula Miles
2. Date of submission:	<u>Sept. 30th 2020</u>

3. Is the assessment plan (Check or highlight one)

an initial plan for the program a revision of an old plan

unaltered from previous year

Course-Level Learning Outcomes-

1. What are the Course-Level Outcomes (CLOs)?

CLO 1: Test a hypothesis that is formulated from observations using the Scientific Method. CLO 2: Describe the structure, function, classification, and evolution of vascular and non-vascular plants.

CLO 3: Explain plant reproduction, including mitosis and meiosis, and requirements for growth. CLO 4: Describe plant physiological processes, including photosynthesis and cellular respiration, and ecological relationships

2. Which CLOs were addressed for this academic year? (2019-2020)

CLO 2: Describe the structure, function, classification, and evolution of vascular and non-vascular plants.

CLO 3: Explain plant reproduction, including mitosis and meiosis, and requirements for growth. CLO 4: Describe plant physiological processes, including photosynthesis and cellular respiration, and ecological relationships

3. Which CLOs are being addressed in your assessment plan next academic year? (2020-2021)

CLO 2: Describe the structure, function, classification, and evolution of vascular and non-vascular plants.

CLO 3: Explain plant reproduction, including mitosis and meiosis, and requirements for growth.

4. Explain the assessment cycle.

For the 2018-2019 assessment cycle, we were able to assess CLO 2-5 using several methods.

Botany class (2302) and lab (2102) were separated between these two assessment cycles.

For the 2019-2020 assessment cycle, we are assessing CLO 2 and 3 using one method.



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5. What are the assessment methods? Are they direct or indirect?

Indirect - Other We used a life cycle drawing of the fern to assess CLO3 Explain plant reproduction and requirements for growth and CLO2 Describe the structure, function, classification, and evolution of vascular and non-vascular plants.

6. What are the assessment goal(s)?

The goal is the same for all assessments: The level of proficiency is 80% or better to pass.

7. What were the findings for this academic year? (2019-2020)

The students in this botany class practiced labeling and drawing the life cycle of both a moss and a fern. The results of the test over these 2 life cycles shows that the students get confused between life cycles and do not always know what is happening during meiosis.

Fall 2019 Results: The results for the fern life cycle, which were used for assessment, had an average grade of 94% for the Scientific Stages portion and an 85% for the Graphics section of the assessment. These are good results however, there were only 4 perfect papers out of 10 so there is room for improvement.

Spring 2020 Results: The results for the fern life cycle had an average grade 96% for the Scientific Stages portion but an 83% for the Graphics section. There were 4 perfect papers out of 9 students.

For both semesters, the few places where there were mistakes, they had to do with understanding meiosis and using the terms in the correct order. Some simply had missing terms even though there was a list. Also, there is a tendency to not clearly mark the terms with an arrow to the graphic.

8. What is your analysis of the findings?

Fall 2019: There was an average grade of 94% for the Scientific Stages portion and an 85% for the Graphics section.

Spring 2020: There was an average grade 96% for the Scientific Stages portion and an 83% for the Graphics section.

All were above the proficiency level of 80%.



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9. What is the action plan for the next academic year? (2020-2021) Explain.

Action Plan for Fern life cycle Assessment:

1. Continue to refine the work sheets for meiosis and mitosis so the students can practice the steps of these processes. These need to be implemented early in the semester such as during the review process as the beginning of the semester.

2. Have students help to standardize each graphic for each step of the life cycles. Have students make a legend for drawing each part.

3. Practice more on putting the steps of the life cycle in order without the drawings. This can be accomplished using a graphic organizer of some sort.