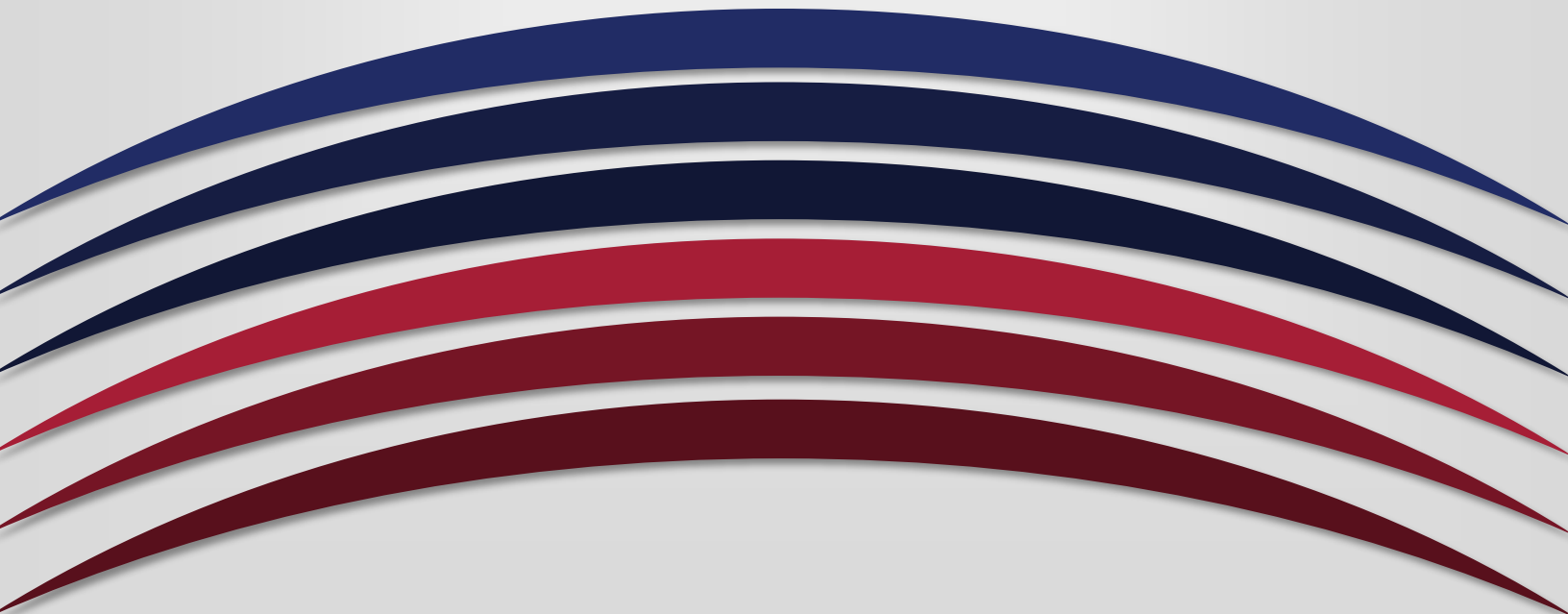




UNIVERSITY OF ARKANSAS  
**PULASKI TECH**

**Assessment Report:**  
**2019-2020:**  
**Biological Science Lab BIOL 1102**



1. Name of individual compiling report: Ben Rains

2. Date of submission: September 2020

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

☐ an initial plan for the  
program

☐ a revision of an old plan

XXX unaltered from  
previous year

## Course-Level Learning Outcomes-

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

CLO 1 test hypothesis Test a hypothesis that is formulated from observations

CLO 2 Microscope use Use of microscope and other lab equipment.

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

Both CLOs were assessed this year, although only CLO 1 data was collected and analyzed.

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

We plan on collecting the CLO 1 data again.

Students will still complete the microscope use test, though we do not plan on collecting data. The committee will decide in spring 2021 if we will resume collection of data for the next cycle.

### 4. Explain the assessment cycle.

The assessment cycle consists of analyzing data collected in the fall and spring semesters of each academic year. This data is reported to the course lead and disseminated to the full-time faculty members in the discipline. This committee forms the working group responsible for decision making for future assessment cycles. Each academic year uses the plan decided upon in spring of the prior academic year.

To illustrate this cycle:

Fall semester 2019 – data collection.

Spring semester 2020 – data collection

Spring semester 2020 – analysis of data from the 2018-2019 academic year; any modifications or changes are derived from the data from the prior year.

Effectiveness of class assessment materials is also scrutinized.

Fall 2020 – the assessment plan for the 2020-2021 academic year are shared.

In spring of 2021 – the cycle begins anew.

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

CLO 1 is measured directly through a student paper. The collected experimental data is used to prepare a journal style scientific paper.

CLO 2 is measured directly through a student examination and laboratory practical.

## 6. What are the assessment goal(s)?

Successful completion of CLO 1 is considered as scoring a 70% or higher on the osmosis paper.

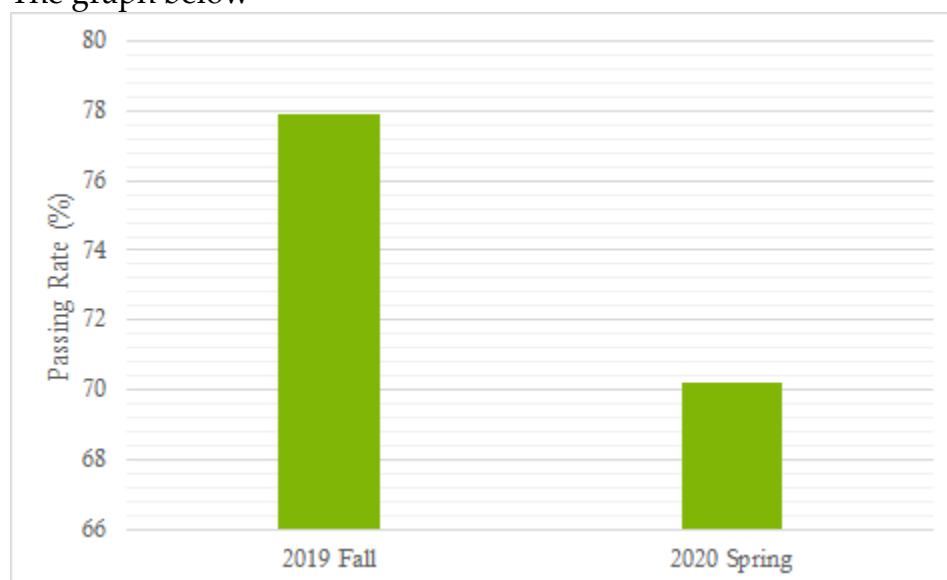
The CLO 2 assessment is also considered successful as a scoring of 70% or higher.

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

The collected data indicate students had a success rate of 77.93 % across all sections for fall semester and 70.23% for spring semester.

The microscope assessment data (CLO 2) was not collected, although faculty members were required to complete it.

The graph below



Presents the fall 2019 and spring 2020 semester results.

## 8. What is your analysis of the findings?

The data indicate the assessment methods appear to be meeting our desired needs. This is the first year we have used this method, so we have only this data to consider.

In the presented earlier, it appears there is a difference in attainment between spring and fall semesters. At this moment the faculty feel that the difference can be attributed to the sudden change in modality and delivery methods for the spring semester.

In preliminary discussions, the faculty have been thinking about ways to improve our laboratory paper and assessment methods. The consensus at this point is to wait until the fall 2020 data are in and have another semester to work with.

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

In spring 2021 faculty members plan to discuss the paper assignment and at that point we will have data from fall 2020 to also consider.

At the time of this writing it appears the paper assignment is adequate to the task. Further data will allow us to determine if the spring 2020 semester data was anomalous.

In the past semesters we had reached a point in the microscope assessment that we felt we could gain more information focusing on other course objectives. In our annual meeting the discussion will consider if microscope data needs to be collected and analyzed to ensure that the course is meeting objectives.

It is of note that the spring assessment data is more difficult to compare to prior semesters. The nation experienced Covid-19, and in mid semester classes moved from the regular forms of delivery to a completely online presentation. This was done to help prevent spreading the virus.

The plan adopted for the 2020-2021 academic year continues the overall assessment plan of collecting data for the paper requirement. This will be further examined in the next semester.