UNIVERSITY OF ARKANSAS
PULASKI TECH

Assessment Report:
2019-2020:
(Earth Science-PHYS 1307)

1. Name of individual compiling report: *Dr. Madhu Shaw Reniguntala*

2. Date of submission: *9/01/2020*

3. Is the assessment plan

☐ 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)?

1. The student will be able to apply the scientific method to aid in problem solving and will be able to use multiple different measurement systems.
2. The student will be able to identify the particles that make up an atom and how those particles interact with other atoms to create bonds via chemical reactions involving the earth materials such as minerals and rocks.
3. The student will be able to explain the occurrence of some of the natural phenomenon such as Earthquakes, volcanism, glacial formations, plate tectonics, weathering, and erosion. Student will also be able to describe how earth processes create hazards to life and property
4. The student will be able to distinguish between weather and climate and list the major gases composing Earth's atmosphere.
5. The student will be able to discuss the extent and distribution of oceans and continents on earth, summarize various techniques used to map the ocean floor and discuss the factors that create and influence surface ocean currents and effects these currents have on climate.
6. The student will be able to explain the principle of uniformitarianism/catastrophism, distinguish between numerical and relative dating, define fossils and principles to determine a time sequence of geologic events, outlines the major stages in Earth's evolution and geologic events.

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

All 6 CLO's were assessed using an information literacy assignment (Research paper) and cumulative final exam.

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

CLOs 2-6 will be assessed in the next academic year.

4. Explain the assessment cycle.

Every fall, CLO 1 is assessed *via* Information Literacy Research Paper. A collection of information literacy research papers will be assessed for evidence of influence of scientific thought on individuals and society. Courses to be assessed with information literacy are PHYS1307-A01. Three information literacy reports will be selected related to low, middle, and high assigned grades per the instructor. Based on the data collected from information literacy reports, the results are tabulated as "Does not meet expectations, Meets expectations, and Exceeds expectations.

70% earns a "C" or above of students in the sample data will receive "meets expectations" or above compared to the expectation's lists. (started Fall 2017).
Every spring, CLO's 2 to 6 are assessed *via* a standardized cumulative final exam. The final exam will assess multiple questions related to the learning outcomes. The results from the multiple question sets will be averaged giving an indication of proficiency or non-proficiency. (started Spring 2018).

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

The final cumulative exam (CLO's 2-6) and Research paper (CLO 1) are all direct assessments given as exams and research paper assignments.

6. What are the assessment goal(s)?

The assessment goals are as follows:

Make sure all assessments are rigorous and identifies the areas or contents the students are having difficulty with.
Make sure that all instructors are covering the content as agreed upon by the department

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

The cumulative final exam assessment method (CLO's 2-6) shows that most of the students get the understanding of the concepts well which is evident from the scores achieved. All the students achieved the threshold (70% of students scoring 70% or above) in each CLO's.

The research paper assessment method (CLO's 1) shows that most of the students achieved the threshold (70% of students scoring 70% or above).

8. What is your analysis of the findings?

Cumulative final exam assessment: Students were doing well on the exam. With the increase in average scores from 2019 to 2020, adjustments made since 2018 seems to have had a positive effect.

Research Paper assessment: Most of the students achieved the threshold (70% of students scoring 70% or above). Improvement in better quality of writing and topics was observed.

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

For the cumulative final exam assessment Method: If the results remain above the desired threshold, the assessment will likely be continued for more semesters.

For the Research paper assessment: If the results remain above the desired threshold, the assessment will likely be continued for more semesters.

Introduction of Lab assessment will be discussed during the coming academic year.