Outcome Assessment Timeline

Academic Programs

Physical Science

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| **APR /SLO 3-Year Cycle** |  **2021-2024** |
| **Course ID** | **Course-Level Student Learning Outcome (CSLO)** | **Measure/Collect Data** | **Discuss & Plan** |
| PHS 101INTRODUCTION TO THE PHYSICAL SCIENCES  | Student will describe and define electricity, power, and magnetism. | Fall 2021 | Spring 2022 |
| Student will define the following physical laws and apply these laws to solving related problems: Kepler's Laws of Motion and Newton's Laws of Motion. | Fall 2021 | Spring 2022 |
| The student will compare and contrast different methods of physical science research. | Fall 2021 | Spring 2022 |
| Student will compare and contrast the scientific method to other methods of inquiry typically utilized in disciplines such as philosophy, literature, fine arts and economics. | Fall 2021 | Spring 2022 |
| PHS101L - INTRODUCTION TO PHYSICAL SCIENCE LABORATORY | Student will compare and contrast the limitations and usefulness of physical models to solving problems in the physical sciences. | Fall 2021 | Spring 2022 |
| Student will compare and contrast the scientific method to other methods of inquiry. | Fall 2021 | Spring 2022 |
| Student will compare and contrast the scientific method to other methods of inquiry. Student will define and apply the following physical laws to solve related problems: conservation of work, conservation of energy, and conservation of momentum. | Fall 2021 | Spring 2022 |
| Student will define the following physical laws and apply these laws to solving related problems: Kepler's Laws of Motion and Newton's Laws of Motion. | Fall 2021 | Spring 2022 |
| PHS 110 INTRODUCTION TO OCEANOGRAPHY | Student will identify and appraise major ecological problems associated with the sea. | Fall 2021 | Spring 2022 |
| Student will identify the basic principles of physics and chemistry as they apply to ocean composition and behavior. | Fall 2021 | Spring 2022 |
| Student will evaluate the impact of people on the fragile interfaces of the ocean environment. | Fall 2021 | Spring 2022 |
| PHS 155 INTRODUCTION TO IMAGE ANALYSIS | Analyze and evaluate concepts related to spatial filtering and band ratios | Fall 2021 | Spring 2022 |
|  | Analyze principles of radiometric and geometric correction | Fall 2021 | Spring 2022 |
|  | Assess and use different types of scientific visualization. | Fall 2021 | Spring 2022 |
|  | Compare and contrast the fundamental methods of image enhancement. | Fall 2021 | Spring 2022 |
|  | Investigate and employ techniques of image classification. | Fall 2021 | Spring 2022 |
|  | Use image analysis skills to interpret geographic images. | Fall 2021 | Spring 2022 |
| PHS 250 OUR GLOBAL FUTURE---VALUES FOR SURVIVAL | Upon completing this course the student will be able to understand and evaluate issues concerning the use of global natural resources and human impact on the biosphere. | Fall 2021 | Spring 2022 |
| Upon completing this course the student will be able to understand his or herself and others as members of our diverse global community | Fall 2021 | Spring 2022 |
| **Program** |  | **Measure/Collect Data** | **Discuss & Plan** |
| Physical Science 01670 Associate in Science | Students should be able to demonstrate broad science content knowledge in the physical sciences such as the nature and structure of matter, Earth’s place in the Universe, and the conservation of energy and matter. | 2021-2024 | Fall 2023 |
| Students should be able to demonstrate the application of quantitative skills (such as statistics, mathematics and the interpretation of numerical graphical data) to physical science problems. | 2021-2024 | Fall 2023 |
| Students should be able to demonstrate a general understanding of the nature of science, the methods applied in scientific investigations, and the value of those methods in developing a rigorous understanding of the physical world. Students should be able to identify the difference between science and other fields of knowledge. | 2021-2024 | Fall 2023 |

**Directions & Helpful Hints**

In the spaces provided on the timeline, please list course-level and program-level student learning outcomes and when each will be assessed.

 **APR/SLO 3-Year Cycle**: The APR/SLO cycle begins with a compressive program review and ends just before the next comprehensive is due.

 **Course ID:** Insert course designator (e.g., ENGL 114, MATH 60, COMM 103)

 **Course-Level Student Learning Outcome (CSLO):** Write in each CSLO listed on the course outline of record. This can be accessed in CurricUNET.

 **Measure:** Insert the semester(s) each CSLO will be measured, and entered into eLumen.

 **Discuss & Plan:** State the semester the faculty will meet to discuss assessment results and create action plans as needed.

 **Program:** State the program being assessed.

 **Program-Level Student Learning Outcome (PSLO):** State the PSLO(s) for each program listed.

Considerations for Completing the SLO Assessment Timeline:

As per the SCEA contract, “The timeline shall ensure that all SLOs in all sections for each course are to be assessed at least once during the 3-year cycle, with a maximum number of course SLOs per section collected by a Unit member at any one time being three (3)”.

According to the ACCJC Standard II.A.3, “The institution identifies and regularly assesses learning outcomes for courses, programs, certificates. And degrees using established institutional procedures.”