

## Program-Level Assessment: Annual Report

Program Name (no acronyms): Environmental Science

Department: Earth and Atmospheric Sciences

Degree or Certificate Level: BS

College/School: College of Arts and Sciences

Date (Month/Year): 09/2021

Assessment Contact: John Encarnacion

In what year was the data upon which this report is based collected? Academic Year 2020/2021

In what year was the program's assessment plan most recently reviewed/updated? 2020

### 1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle? (Please list the full, complete learning outcome statements and not just numbers, e.g., Outcomes 1 and 2.)

Students will be able to collect, analyze, and interpret environmental data.

### 2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe and identify the course(s) in which these artifacts were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

Several of our learning outcomes are assessed in the junior/senior course **EAS-3100 Environmental Issues**, which can only be taken after the fundamental introductory courses have been taken as well as foundational chemistry and biology courses. In this course, several current environmental issues are tackled. Students research, discuss/debate, and write a report on those issues. The final grade is based on those activities/report and reflect the students' achieved outcomes of their learning.

### 3. Assessment Methods: Evaluation Process

What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and **include them in/with this report document** (do not just refer to the assessment plan).

Scores/grades for EAS-3100 from the Spring 2021 semester were collected. The scores/grades were assessed/calculated by the instructor. Grades were based on discussion preparation and participation, written reports, and team leadership.

### 4. Data/Results

What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

EAS-3100 had 8 students in Spring 2021. Out of 8 students, 7 received a grade of 4.0/4.0 (high achievement and intellectual initiative) and 1 student received a 3.0/4.0 (above average achievement). That is, 87.5% of the students achieved the highest score possible.

5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you?

- In the course that requires the most previous knowledge/background information and that is required of all environmental science and environmental studies majors, the vast majority of the students were able to collect, analyze, synthesize, and interpret environmental data very well.

6. Closing the Loop: Dissemination and Use of Current Assessment Findings

A. When and how did your program faculty share and discuss these results and findings from this cycle of assessment?

The program coordinator has not yet had an opportunity to share and discuss the findings from this current cycle of assessment.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies

- Course content
- Teaching techniques
- Improvements in technology
- Prerequisites

- Course sequence
- New courses
- Deletion of courses
- Changes in frequency or scheduling of course offerings

Changes to the Assessment Plan

- Student learning outcomes
- Artifacts of student learning
- Evaluation process

- Evaluation tools (e.g., rubrics)
- Data collection methods
- Frequency of data collection

Please describe the actions you are taking as a result of these findings.

The program coordinator will confer with the instructor of EAS-3100 Environmental Issues to discuss the findings and identify areas for further strengthening, if needed.

If no changes are being made, please explain why.

7. Closing the Loop: Review of Previous Assessment Findings and Changes

A. What is at least one change your program has implemented in recent years as a result of assessment data?

With the revision of the program in 2020, this is the first assessment of the new program and assessment plan.

B. How has this change/have these changes been assessed?

N/A

C. What were the findings of the assessment?

N/A

D. How do you plan to (continue to) use this information moving forward?

We will continue to monitor this outcome and include data from other courses.

**IMPORTANT: Please submit any assessment tools (e.g., rubrics) with this report as separate attachments or copied and pasted into this Word document. Please do not just refer to the assessment plan; the report should serve as a stand-alone document.**