

Program-Level Assessment: Annual Report

Program Name (no acronyms): Geoscience, Meteorology Department: Earth and Atmospheric Sciences
 Degree or Certificate Level: MS, PhD College/School: College of Arts and Sciences
 Date (Month/Year): 10/2021 Assessment Contact: Charles Graves
 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? 2016

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.)

1. Assess relevant literature or scholarly contributions in the Earth & Atmospheric Sciences.
2. Apply the major practices, theories, or research methodologies in the Earth & Atmospheric Sciences.
3. Apply knowledge from the Earth & Atmospheric Sciences to address problems in broader contexts.
4. Articulate arguments or explanations to both a disciplinary or professional audience and to a general audience, in both oral (4a) and written (4b) forms.
5. Evidence scholarly and/or professional integrity in Earth & Atmospheric Sciences.

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.

Student committee chairs assessed each student's level of achievement when the student advanced to candidacy and defended.
 Students assessed their own level of achievement when they defended.

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).

Faculty and students completed google forms. The forms are included in this report.

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)?

M.S. Advancement to Candidacy Faculty Assessment (completed for 1/1 students)

	Level 1	Level 2	Level 3	Level 4	Level 5
Goal 1	0	0	1	0	0
Goal 2	0	0	0	0	1
Goal 3	0	0	0	0	1
Goal 4a	0	0	0	0	1
Goal 4b	0	0	0	1	0
Goal 5	0	0	0	0	1

M.S. Defense Faculty Assessment (completed for 1/1 students)

	Level 1	Level 2	Level 3	Level 4	Level 5
Goal 1	0	0	0	1	0
Goal 2	0	0	0	0	1
Goal 3	0	0	0	0	1
Goal 4a	0	0	0	0	1
Goal 4b	0	0	0	1	0
Goal 5	0	0	0	0	1

M.S. Defense Student Assessment (completed for 1/1 students)

	Level 1	Level 2	Level 3	Level 4	Level 5
Goal 1	0	0	0	0	1
Goal 2	0	0	0	0	1
Goal 3	0	0	0	1	0
Goal 4a	0	0	0	1	0
Goal 4b	0	0	0	1	0
Goal 5	0	0	0	0	1

Ph.D. Advancement to Candidacy Faculty Assessment (completed for 2/3 students)

	Level 1	Level 2	Level 3	Level 4	Level 5
Goal 1	0	0	1	1	0
Goal 2	0	0	0	1	1
Goal 3	0	0	1	0	1
Goal 4a	0	0	1	0	1
Goal 4b	0	0	0	2	0
Goal 5	0	1	0	0	1

PhD. Defense Faculty Assessment (completed for 1/3 students)

	Level 1	Level 2	Level 3	Level 4	Level 5
Goal 1	0	0	0	1	0
Goal 2	0	0	0	0	1
Goal 3	0	0	0	1	0
Goal 4a	0	0	1	0	0
Goal 4b	0	0	0	1	0
Goal 5	0	0	0	0	1

PhD. Defense Student Assessment (completed for 3/3 students)

	Level 1	Level 2	Level 3	Level 4	Level 5
Goal 1	0	0	2	1	0
Goal 2	0	0	2	0	1
Goal 3	0	0	3	0	0
Goal 4a	0	0	1	2	0
Goal 4b	0	0	1	2	0
Goal 5	0	0	0	0	3

5. Findings: Interpretations & Conclusions

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

With the caveat of a small sample size, we can note:

- Faculty and student assessments of the same student and goal were usually within one level of each other.
- Achievement levels generally increased from advancing to candidacy to defense.

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 summary of the results was shared with the faculty and comments were requested.

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.

We will make sure faculty complete assessments at each milestone so that we can have a more complete dataset.

For some of the goals, some faculty felt that the levels of achievement are not listed in increasing order, so we will revisit the achievement levels.

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?

N/A

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.

