

# 2016-2017 Annual Assessment Report Template

For instructions and guidelines visit our [website](#)  
or [contact us](#) for more help.

**Please begin by selecting your program name in the drop down.** If the program name is not listed, please enter it below:

Select Program

OR

BS Environmental Studies

## Question 1: Program Learning Outcomes

### Q1.1.

Which of the following Program Learning Outcomes (PLOs), Sac State Baccalaureate Learning Goals (BLGs), and emboldened Graduate Learning Goals (GLGs) **did you assess?** [Check all that apply]

- ☐ 1. **Critical Thinking**
- ☐ 2. **Information Literacy**
- ☐ 3. **Written Communication**
- ☐ 4. **Oral Communication**
- ☐ 5. Quantitative Literacy
- ☒ 6. **Inquiry and Analysis**
- ☐ 7. Creative Thinking
- ☐ 8. Reading
- ☐ 9. Team Work
- ☐ 10. Problem Solving
- ☐ 11. Civic Knowledge and Engagement
- ☐ 12. **Intercultural Knowledge, Competency, and Perspectives**
- ☐ 13. Ethical Reasoning
- ☐ 14. Foundations and Skills for Lifelong Learning
- ☐ 15. **Global Learning and Perspectives**
- ☒ 16. Integrative and Applied Learning
- ☐ 17. Overall Competencies for GE Knowledge
- ☐ 18. **Overall Disciplinary Knowledge**
- ☐ 19. **Professionalism**
- ☐ 20. Other, specify any assessed PLOs not included above:

a.

b.

c.

### Q1.2.

Please provide more detailed background information about **EACH PLO** you checked above and other information including how your specific PLOs are **explicitly** linked to the Sac State **BLGs/GLGs**:

**Q1.2.1.**

Do you have rubrics for your PLOs?

- ☐ 1. Yes, for all PLOs
- ☒ 2. Yes, but for some PLOs
- ☐ 3. No rubrics for PLOs
- ☐ 4. N/A
- ☐ 5. Other, specify:

**Q1.3.**

Are your PLOs closely aligned with the mission of the university?

- ☒ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know

**Q1.4.**

Is your program externally accredited (other than through WASC Senior College and University Commission (WSCUC))?

- ☐ 1. Yes
- ☒ 2. No (skip to **Q1.5**)
- ☐ 3. Don't know (skip to **Q1.5**)

**Q1.4.1.**

If the answer to Q1.4 is **yes**, are your PLOs closely aligned with the mission/goals/outcomes of the accreditation agency?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know

**Q1.5.**

Did your program use the *Degree Qualification Profile* ("DQP", see <http://degreeprofile.org>) to develop your PLO(s)?

- ☐ 1. Yes
- ☐ 2. No, but I know what the DQP is
- ☒ 3. No, I don't know what the DQP is
- ☐ 4. Don't know

**Q1.6.**

Did you use action verbs to make each PLO measurable?

- ☐ 1. Yes
- ☒ 2. No
- ☐ 3. Don't know

**(Remember: Save your progress)**

## Question 2: Standard of Performance for the Selected PLO

**Q2.1.**

Select **OR** type in **ONE(1)** PLO here as an example to illustrate how you conducted assessment (be sure you *checked the correct box* for this PLO in Q1.1):

Select PLO

If your PLO is **not listed**, please enter it here:

Ability to carry out research tasks appropriate to analyzing environmental problems

**Q2.1.1.**

Please provide more background information about the **specific PLO** you've chosen in Q2.1.

The PLO is intended to assess a student's ability to conduct original research. Original research, in the context of the PLO, includes hypothesis-driven research intended to answer a specific question through generation and analysis of data, and research that addresses an existing problem or question through literature evaluation, integration, and development of original perspectives on, and solutions to the problem (e.g., through meta-analysis).

**Q2.2.**

Has the program developed or adopted **explicit** standards of performance for this PLO?

- ☐ 1. Yes
- ☒ 2. No
- ☐ 3. Don't know
- ☐ 4. N/A

**Q2.3.**

Please **provide the rubric(s)** and **standards of performance** that you have developed for this PLO here or in the appendix.

**See attached report**

**Rubric**


4 - Answer clearly expresses the four elements (question, testing, interpretation, integration) – 15%

3 - Answer clearly expresses three of the four elements – 25%

2 - Answer expresses two of four elements – 45%

1 - Answer focuses on limited aspects of science or are circular (e.g., science is using the scientific method) – 15%

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Q2.4. PLO	Q2.5. Stdrd	Q2.6. Rubric	Please indicate where you have published the <b>PLO</b> , the <b>standard</b> of performance, and the <b>rubric</b> that was used to measure the PLO:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1. In <b>SOME</b> course syllabi/assignments in the program that address the PLO
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2. In <b>ALL</b> course syllabi/assignments in the program that address the PLO
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3. In the student handbook/advising handbook
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4. In the university catalogue
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. On the academic unit website or in newsletters
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. In the assessment or program review reports, plans, resources, or activities
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7. In new course proposal forms in the department/college/university
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8. In the department/college/university's strategic plans and other planning documents
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. In the department/college/university's budget plans and other resource allocation documents
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10. Other, specify: <input type="text"/>

**Q3.1.**

Was assessment data/evidence **collected** for the selected PLO?

- ☒ 1. Yes
- ☐ 2. No (skip to **Q6**)
- ☐ 3. Don't know (skip to **Q6**)
- ☐ 4. N/A (skip to **Q6**)

**Q3.1.1.**

How many assessment tools/methods/measures **in total** did you use to assess this PLO?

**Q3.2.**

Was the data **scored/evaluated** for this PLO?

- ☒ 1. Yes
- ☐ 2. No (skip to **Q6**)
- ☐ 3. Don't know (skip to **Q6**)
- ☐ 4. N/A (skip to **Q6**)

**Q3.2.1.**

Please describe how you collected the assessment data for the selected PLO. For example, in what course(s) or by what means were data collected:

Data were collected as responses to surveys by ENVS undergraduates.

(Remember: **Save your progress**)

## Question 3A: Direct Measures (key assignments, projects, portfolios, etc.)

**Q3.3.**

Were direct measures (key assignments, projects, portfolios, course work, student tests, etc.) used to assess this PLO?

- ☐ 1. Yes
- ☒ 2. No (skip to **Q3.7**)
- ☐ 3. Don't know (skip to **Q3.7**)

**Q3.3.1.**

Which of the following direct measures (key assignments, projects, portfolios, course work, student tests, etc.) were used?

[Check all that apply]

- ☐ 1. Capstone project (e.g. theses, senior theses), courses, or experiences
- ☐ 2. Key assignments from required classes in the program
- ☐ 3. Key assignments from elective classes
- ☐ 4. Classroom based performance assessment such as simulations, comprehensive exams, or critiques
- ☐ 5. External performance assessments such as internships or other community-based projects
- ☐ 6. E-Portfolios
- ☐ 7. Other Portfolios
- ☐ 8. Other, specify:

**Q3.3.2.**

Please **provide** the direct measure (key assignments, projects, portfolios, course work, student tests, etc.) you used to collect data, THEN **explain** how it assesses the PLO:



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### Q3.4.

What tool was used to evaluate the data?

- ☐ 1. **No** rubric is used to interpret the evidence (skip to **Q3.4.4.**)
- ☐ 2. Used rubric developed/modified by the faculty who teaches the class (skip to **Q3.4.2.**)
- ☐ 3. Used rubric developed/modified by a group of faculty (skip to **Q3.4.2.**)
- ☐ 4. Used rubric pilot-tested and refined by a group of faculty (skip to **Q3.4.2.**)
- ☐ 5. The VALUE rubric(s) (skip to **Q3.4.2.**)
- ☐ 6. Modified VALUE rubric(s) (skip to **Q3.4.2.**)
- ☐ 7. Used other means (Answer **Q3.4.1.**)

#### Q3.4.1.

If you used other means, which of the following measures was used? [**Check all that apply**]

- ☐ 1. National disciplinary exams or state/professional licensure exams (skip to **Q3.4.4.**)
- ☐ 2. General knowledge and skills measures (e.g. CLA, ETS PP, etc.) (skip to **Q3.4.4.**)
- ☐ 3. Other standardized knowledge and skill exams (e.g. ETC, GRE, etc.) (skip to **Q3.4.4.**)
- ☐ 4. Other, specify:  (skip to **Q3.4.4.**)

#### Q3.4.2.

Was the **rubric** aligned directly and explicitly **with the PLO**?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know
- ☐ 4. N/A

#### Q3.4.3.

Was the **direct measure** (e.g. assignment, thesis, etc.) aligned directly and explicitly **with the rubric**?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know
- ☐ 4. N/A

#### Q3.4.4.

Was the **direct measure** (e.g. assignment, thesis, etc.) aligned directly and explicitly **with the PLO**?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know
- ☐ 4. N/A

### Q3.5.

How many faculty members participated in planning the assessment data **collection** of the selected PLO?

**Q3.5.1.**

How many faculty members participated in the **evaluation** of the assessment data for the selected PLO?

**Q3.5.2.**

If the data was evaluated by multiple scorers, was there a norming process (a procedure to make sure everyone was scoring similarly)?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know
- ☐ 4. N/A

**Q3.6.**

How did you **select** the sample of student work (papers, projects, portfolios, etc.)?

Students who had completed one or more of three research-based courses - ENVS 120, ENVS 121, ENVS 130

**Q3.6.1.**

How did you **decide** how many samples of student work to review?

All students enrolled in the courses

**Q3.6.2.**

How many students were in the class or program?

**Q3.6.3.**

How many samples of student work did you evaluated?

**Q3.6.4.**

Was the sample size of student work for the direct measure adequate?

- ☐ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know

**(Remember: Save your progress)**

## Question 3B: Indirect Measures (surveys, focus groups, interviews, etc.)

### Q3.7.

Were indirect measures used to assess the PLO?

- ☒ 1. Yes
- ☐ 2. No (skip to **Q3.8**)
- ☐ 3. Don't Know (skip to **Q3.8**)

### Q3.7.1.

Which of the following indirect measures were used? [**Check all that apply**]

- ☐ 1. National student surveys (e.g. NSSE)
- ☐ 2. University conducted student surveys (e.g. OIR)
- ☒ 3. College/department/program student surveys or focus groups
- ☐ 4. Alumni surveys, focus groups, or interviews
- ☐ 5. Employer surveys, focus groups, or interviews
- ☐ 6. Advisory board surveys, focus groups, or interviews
- ☐ 7. Other, specify:

### Q3.7.1.1.

Please explain and attach the indirect measure you used to collect data:

Surveys of students enrolled in two, research-based, ENVS courses were surveyed (see attached report)



**ENVS program assessment - research skills.docx**  
95.4 KB



**No file attached**

### Q3.7.2.

**If** surveys were used, how was the sample size **decided**?

It was based on the class size (all students in specified classes participated)

### Q3.7.3.

**If** surveys were used, how did you **select** your sample:

All students in specified classes participated.

### Q3.7.4.

If surveys were used, what was the response rate?

100%

## Question 3C: Other Measures (external benchmarking, licensing exams, standardized tests, etc.)

### Q3.8.

Were external benchmarking data, such as licensing exams or standardized tests, used to assess the PLO?

- ☐ 1. Yes
- ☒ 2. No (skip to **Q3.8.2**)
- ☐ 3. Don't Know (skip to **Q3.8.2**)

### Q3.8.1.

Which of the following measures was used? [**Check all that apply**]

- ☐ 1. National disciplinary exams or state/professional licensure exams
- ☐ 2. General knowledge and skills measures (e.g. CLA, ETS PP, etc.)
- ☐ 3. Other standardized knowledge and skill exams (e.g. ETC, GRE, etc.)
- ☐ 4. Other, specify:


### Q3.8.2.


Were other measures used to assess the PLO?

- ☐ 1. Yes
- ☒ 2. No (skip to **Q4.1**)
- ☐ 3. Don't know (skip to **Q4.1**)

### Q3.8.3.

If other measures were used, please specify:

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(Remember: **Save your progress**)

## Question 4: Data, Findings, and Conclusions

### Q4.1.

Please provide simple tables and/or graphs to summarize the assessment data, findings, and conclusions for the selected PLO in **Q2.1**:

see attached report





ENVS program assessment - research skills.docx  
95.4 KB



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#### Q4.2.

Are students doing well and meeting the program standard? If not, how will the program work to improve student performance of the selected PLO?

In part. ENVS faculty will meet to discuss approaches to improving research skills in the curriculum. ENVS has also partnered with NSM and the SIRIUS/CURES program to encourage undergraduate research and revision of curricula to promote undergraduate research.



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#### Q4.3.

For the selected PLO, the student performance:

- ☐ 1. **Exceeded** expectation/standard
- ☐ 2. **Met** expectation/standard
- ☒ 3. **Partially** met expectation/standard
- ☐ 4. Did not meet expectation/standard
- ☐ 5. No expectation/standard has been specified
- ☐ 6. Don't know

### Question 4A: Alignment and Quality

#### Q4.4.

Did the data, including the direct measures, from all the different assessment tools/measures/methods directly align with the PLO?

- ☒ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know

#### Q4.5.

Were **all** the assessment tools/measures/methods that were used good measures of the PLO?

- ☒ 1. Yes
- ☐ 2. No
- ☐ 3. Don't know

### Question 5: Use of Assessment Data (Closing the Loop)

#### Q5.1.

As a result of the assessment effort and based on prior feedback from OAPA, do you anticipate *making any changes* for your program (e.g. course structure, course content, or modification of PLOs)?

- ☒ 1. Yes
- ☐ 2. No (skip to **Q5.2**)
- ☐ 3. Don't know (skip to **Q5.2**)

#### Q5.1.1.

Please describe *what changes* you plan to make in your program as a result of your assessment of this PLO. Include a description of how you plan to assess the impact of these changes.

We plan to review our PLOs to ensure that they are measurable.

**Q5.1.2.**

Do you have a plan to assess the *impact of the changes* that you anticipate making?

- ☐ 1. Yes
- ☒ 2. No
- ☐ 3. Don't know

**Q5.2.**

Since your last assessment report, **how have the assessment data from then been used** so far?

	1. Very Much	2. Quite a Bit	3. Some	4. Not at All	5. N/A
1. Improving specific courses	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Modifying curriculum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Improving advising and mentoring	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Revising learning outcomes/goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Revising rubrics and/or expectations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Developing/updating assessment plan	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Annual assessment reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Program review	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Prospective student and family information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Alumni communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. WSCUC accreditation (regional accreditation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Program accreditation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. External accountability reporting requirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Trustee/Governing Board deliberations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Strategic planning	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Institutional benchmarking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Academic policy development or modifications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Institutional improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Resource allocation and budgeting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. New faculty hiring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Professional development for faculty and staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Recruitment of new students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. Other, specify:

**Q5.2.1.**

Please provide a detailed example of how you used the assessment data above:

Faculty met to discuss and coordinate approaches to improve writing skills in the ENVS curriculum.

**Q5.3.**

To what extent did you apply **last year's feedback** from the Office of Academic Program Assessment in the following areas?

	1. Very Much	2. Quite a bit	3. Some	4. Not at All	5. N/A
1. Program Learning Outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
2. Standards of Performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
3. Measures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
4. Rubrics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. Alignment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
6. Data Collection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
7. Data Analysis and Presentation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Use of Assessment Data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9. Other, please specify: <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q5.3.1.**

Please share with us an example of how you applied **last year's feedback** from the Office of Academic Program Assessment in any of the areas above:

We attempted to include more information in the assessment template rather than as attached reports.

**(Remember: Save your progress)**

## Additional Assessment Activities

**Q6.**

Many academic units have collected assessment data on aspect of their program *that are not related to the PLOs* (i.e. impacts of an advising center, etc.). **If** your program/academic unit has collected data on program *elements*, please briefly report your results here:



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**Q7.**

What PLO(s) do you plan to assess next year? [**Check all that apply**]

- ☐ 1. **Critical Thinking**
- ☐ 2. **Information Literacy**
- ☐ 3. **Written Communication**
- ☐ 4. **Oral Communication**
- ☐ 5. Quantitative Literacy
- ☐ 6. **Inquiry and Analysis**
- ☐ 7. Creative Thinking
- ☐ 8. Reading
- ☐ 9. Team Work
- ☐ 10. Problem Solving
- ☐ 11. Civic Knowledge and Engagement
- ☐ 12. **Intercultural Knowledge, Competency, and Perspectives**
- ☐ 13. Ethical Reasoning
- ☐ 14. Foundations and Skills for Lifelong Learning
- ☐ 15. **Global Learning and Perspectives**
- ☐ 16. Integrative and Applied Learning
- ☐ 17. Overall Competencies for GE Knowledge
- ☐ 18. **Overall Disciplinary Knowledge**
- ☐ 19. **Professionalism**
- ☒ 20. Other, specify any PLOs not included above:

a. Ability to assess environmental problems and solutions by applying economic and political concepts

b.

c.

**Q8.** Please attach any additional files here:



No file attached



No file attached



No file attached



No file attached

**Q8.1.**

Have you attached any files to this form? If yes, please list every attached file here:

yes

Survey, evaluation rubric, and outcome evaluation.

## Program Information (**Required**)

**Program:**

BS Environmental Studies

(If you typed your program name at the beginning, please skip to Q10)

**Q9.**

Program/Concentration Name: [skip if program name appears above]

Select Program

**Q10.**

Report Author(s):

J.A. Foran

**Q10.1.**

Department Chair/Program Director:

J.A. Foran

**Q10.2.**

Assessment Coordinator:

J.A. Foran

**Q11.**

Department/Division/Program of Academic Unit

Environ. Studies

**Q12.**

College:

College of Social Sciences & Interdisciplinary Studies

**Q13.**

Total enrollment for Academic Unit during assessment semester (see Departmental Fact Book):

200

**Q14.**

Program Type:

- ☒ 1. Undergraduate baccalaureate major
- ☐ 2. Credential
- ☐ 3. Master's Degree
- ☐ 4. Doctorate (Ph.D./Ed.D./Ed.S./D.P.T./etc.)
- ☐ 5. Other, specify:

**Q15.** Number of **undergraduate degree programs** the academic unit has?

1

**Q15.1.** List all the names:

BS in Environmental Studies (not included in the list for Q 9)

BA in Environmental Studies - no longer being used in the curriculum

**Q15.2.** How many concentrations appear on the diploma for this undergraduate program?

0

**Q16.** Number of **master's degree programs** the academic unit has?

0

**Q16.1.** List all the names:

**Q16.2.** How many concentrations appear on the diploma for this master's program?

N/A

**Q17.** Number of **credential programs** the academic unit has?

0

**Q17.1.** List all the names:

**Q18.** Number of **doctorate degree programs** the academic unit has?

0

**Q18.1.** List all the names:

When was your <b>assessment plan</b> ...	1. Before 2011-12	2. 2012-13	3. 2013-14	4. 2014-15	5. 2015-16	6. 2016-17	7. No Plan	8. Don't know
<b>Q19.</b> developed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Q19.1.</b> last updated?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q19.2. (REQUIRED)**

Please **obtain** and **attach** your latest **assessment plan**:



**ENVS Assessment Plan - 2016.docx**  
**84.86 KB**

**Q20.**

Has your program developed a **curriculum map**?

- ☐ 1. Yes  
☐ 2. No  
☒ 3. Don't know

**Q20.1.**

Please **obtain** and **attach** your latest **curriculum map**:



No file attached

**Q21.**

Has your program indicated in the curriculum map where assessment **of student learning** occurs?

- ☐ 1. Yes  
☐ 2. No  
☐ 3. Don't know

**Q22.**

Does your program have a capstone class?

☒ 1. Yes, indicate:

☐ 2. No

☐ 3. Don't know

**Q22.1.**

Does your program have **any** capstone project?

☐ 1. Yes

☒ 2. No

☐ 3. Don't know

(Remember: **Save your progress**)

ver. 5.15/17

**Evaluation of Student Perceptions of Research Skills  
and of Student Understanding of Essential Elements of Scientific Inquiry**

A. ENVS students were asked to respond to questions 1-9 by indicating they strongly agree (SA), agree (A), disagree (D), strongly disagree (SD). Percent responses follow each question. N = 25.

1. I am confident in my ability to construct a testable hypothesis.  
SA = 11 (44%); A = 14 (56%)
2. I am confident that I could design controls for an experiment.  
SA = 10 (40%); A = 15 (60%)
3. I feel confident communicating the results of an experiment to a group of my peers.  
SA = 13 (52%); A = 11 (44%); D = 1 (4%)
4. I feel confident communicating the results of an experiment to a group of scientific experts, e.g., my professors and other scientists.  
SA = 9 (36%); A = 15 (60%); D = 1 (4%)
5. I am confident in my ability to do research with others.  
SA = 15 (60%); A = 10 (40%)
6. I am confident in my ability to interpret data from an experiment.  
SA = 9 (36%); A = 15 (60%); D = 1 (4%)
7. I am confident in my ability to write a clear and succinct scientific paper.  
SA = 6 (24%); A = 16 (64%); D = 3 (12%)
8. I am confident in my ability to read and analyze scientific papers.  
SA = 9 (36%); A = 16 (64%)
9. I am confident in my ability to understand graphs and tables in scientific papers.  
SA = 11 (44%); A = 13 (52%); D = 1 (4%)

B. ENVS students were asked to respond to the following:

What do you think it means to 'think like a scientist'?

Name some qualities of a good scientist.

What does it mean to you to 'do real science'?



An evaluation rubric was established for student answers based on the extent to which answers incorporated the essential elements of scientific inquiry: A question, a sound way to test the question, a sound interpretation of the data, integration of the results with existing research.

### **Rubric and Response**

4 - Answer clearly expresses the four elements (question, testing, interpretation, integration) – 15%

3 – Answer clearly expresses three of the four elements – 25%

2 – Answer expresses two of four elements – 45%

1 – Answer focuses on limited aspects of science or are circular (e.g., science is using the scientific method) – 15%

### **Evaluation**

Nearly all ENVS students who completed the survey were either confident or very confident in their abilities to conduct and communicate research. However, less than half (40%) of student answers to the three questions expressed three or four of the critical elements while 60% of answers contained two or fewer elements, or contained illogical or circular statements. We conclude that students are generally confident of their abilities to conduct and communicate research, but some students may not fully understand the essential elements of scientific inquiry.

### **Assessment Plan for the Next Review Cycle**

A five-year plan for program assessment has been developed and includes an approach for departmental assessment efforts (per PRM II.2.3), assessment strategies, ENVS learning outcomes to be assessed, and attention to questions such as whether and how capstone courses and other core courses can be used appropriately for assessment (Table 2.3). The Department of Environmental Studies developed its Program Learning Objectives in 2006/2007, and of eight objectives, four were identified as key outcomes in the 2010-11 assessment:

Ability to write and speak clearly and persuasively

Ability to assess environmental problems and solutions by applying scientific concepts

Ability to carry out research tasks appropriate to analyzing environmental problems

Ability to assess environmental problems and solutions by applying economic and political concepts

Ability to integrate knowledge, research, and interpretation with substantially greater sophistication than commonly expected in coursework.

ENVS student abilities to write clearly and persuasively were assessed quantitatively during AY 15/16. The remaining four Program Learning Objectives will be assessed over the next five years (Table 2.3).

**Table 2.3. A comprehensive assessment plan for all the programs in the next program review cycle for ENVS BS/BA degrees.**

Program Learning Goal	Corresponding Program Learning Outcomes (PLOs). (Each must directly relate to one or more Program Goals)	In which course(s) will the PLO(s) be assessed?	In which year will the PLO(s) be assessed and how often?	What types of assessment activities <sup>1</sup> will be used to collect the data?	What types of tools <sup>2</sup> will be used to score/evaluate the activity? Who will develop/modify the tool and/or evaluated the activities?	How will the data be collected? By whom?	How will the data be reported <sup>3</sup> (both aggregated and disaggregated), and by whom? What will be the standard of performance?	Who will analyze the data?	How will the data be used? By whom?
I.	Ability to write clearly and persuasively	ENVS 112, ENVS 190	AY 15/16	Student theses, course-based writing assignments	Rubric-based analysis of writing proficiency. External consultant	Analysis of writing - conducted by external consultant	aggregated/disaggregated Report prepared by external consultant, presented to faculty. 70% of students leave the curriculum proficient or highly proficient in each category	External consultant	Presented to faculty. Used to modify courses/pedagogy as necessary
II.	Ability to carry out research tasks appropriate to analyzing environmental problems	ENVS 121, ENVS 130, ENVS 190 (other courses with integrated research opportunities)	AY 16/17	Evaluation of student research skills in conjunction with SIRIUS/CUREs assessment process	Student surveys, self and directed analyses, evaluation of research products	In class via surveys. Collected by course faculty.	Survey and student response results. Quantitative analysis of survey data in conjunction with SIRIUS.. 75% of students are able to understand and apply basic research design, analyses, and text appropriate hypotheses.	Faculty	By faculty to improve incorporation of research opportunities into existing courses
III.	Ability to assess environmental problems and solutions by applying scientific concepts	ENVS 120, 121, 130, 144, 147, 149, 151, 158, 163	AY 17/18	Student performance, survey tools	Surveys and self-and course-based analyses	In class, collected by faculty	Quantitative analysis of survey data in conjunction with SIRIUS. Other objective measures. 75% of students capable of applying scientific concepts to assess and solve environmental problems	Faculty	By faculty to improve coursework and pedagogy, as well as experiential learning opportunities
IV.	Ability to assess environmental problems and solutions by applying economic and political concepts	All ENVS upper division courses	AY 18/19	We will seek external, professional guidance to develop the approach to this assessment	TBD	TBD	TBD	Faculty	75% of students are able to apply economic and political concepts to assess and solve environmental problems
V..	Ability to integrate knowledge, research, and interpretation with substantially greater sophistication than commonly expected in coursework	Selected ENVS upper division courses	AY 19/20	TBE - We will seek external professional guidance to develop the approach to this assessment	TBD	TBD	TBD	Faculty	75% of students are able to effectively integrate knowledge, research, and interpretation