

Annual Program Assessment Report

Assessment reports are to be submitted annually by program/s. The report deadline is September 15th.

Academic Year Assessed: (year assessed)

College: College of Letters and Science

Department: Ecology

Submitted by: (Can be more than one person, but it will be the person who will receive the AOC report)

Program(s) Assessed: (Programs with minors and/or options with common learning outcomes can be submitted on one assessment report)

Indicate all majors, minors, certificates and/or options that are included in this assessment:

| Majors/Minors/Certificate | Options |
|---------------------------|--------------------------------------|
| BS Biological Sciences | Fish & Wildlife Ecology & Management |
| | Conservation Biology & Ecology |
| | Organismal Biology |
| | Biology Teaching |

Annual Assessment Process (CHECK OFF LIST) – this is a quick check list to review your assessment processes.

- Data are collected as defined by Assessment Plan
YES NO
 - Population or unbiased samples of collected assignments are scored by at least two faculty members using scoring rubrics to ensure inter-rater reliability.
YES NO
 - Areas where the acceptable performance threshold has not been met are highlighted.
YES NO NA
 - The scores are presented at a program/unit faculty meeting for assessment.
YES NO
 - The faculty reviewed the assessment results, and responds accordingly (Check all appropriate lines)
 Gather additional data to verify or refute the result.
 Identify potential curriculum changes to try to address the problem
 Change the acceptable performance threshold, reassess
 Choose a different assignment to assess the outcome
 Faculty may reconsider thresholds
 Evaluate the rubric to assure outcomes meet student skill level
 Use Bloom's Taxonomy to consider stronger learning outcomes
 Choose a different assignment to assess the outcome
- OTHER: (If none of the above are appropriate, just describe briefly the results of faculty review – you will have the opportunity to provide more detail within the report)
- Does your report demonstrate changes made because of previous assessment results (closing the loop). YES NO

1. Assessment Plan, Schedule and Data Source.

a. Please provide a multi-year assessment schedule that will show when all program learning outcomes will be assessed, and by what criteria (data). (You may use the table provided, or you may delete and use a different format). This is a good example of putting all your information into a table format. It includes all the program learning outcomes, the course that will demonstrate the outcomes and when assessment will occur. You can use this model or make separate tables, but you need to include all the information. (Note: this example also includes assignment targets, it's nice to have all the information in one place, but this can be included separately).

| ASSESSMENT PLANNING CHART. PROGRAM: Sociology/Criminology | | | | | |
|---|-----------|-----------|-------------------|------------------------------|------------------------|
| LEARNING OUTCOME | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 | Data Source* |
| <i>Learning Outcome 1: Sociology as a Discipline.</i> Our students will demonstrate an understanding of the discipline of sociology and its role in contributing to our understanding of society and changes in society | | SOCI 303 | | | Essay Question |
| <i>Learning Outcome 2: Sociological Concepts.</i> Our students will demonstrate a knowledge, comprehension, and relevance of core sociological concepts. | | SOCI 311 | | | Final Project & Poster |
| <i>Learning Outcome 3: Sociological Theories.</i> Our students will demonstrate an understanding of the role of theory in sociology. | | | SOCI455/ SOCI 311 | | Essay Questions |
| <i>Learning Outcome 4: Sociological Application.</i> Our students will formulate research questions based on critical readings and understandings of sociological research. | SOCI 358 | | | | Final Project |
| <i>Learning Outcome 5: Oral Communication.</i> Our students will demonstrate the ability to present materially orally in an organized and effective manner. | | | SOCI 333 | | Discussion Leader |
| <i>Learning Outcome 6: Written Communication:</i> Our students will demonstrate appropriate writing practices and formats and effective written communication and editing skills. | SOCI 499 | | | SOCI 499 | Final Project |
| <i>Learning Outcome 7: Empiricism.</i> Our students will demonstrate an understanding of the roles and uses of evidence in qualitative and quantitative methods. | | | | SOCI (upper division course) | Essay Question |

***Data sources can be items such as randomly selected student essays or projects, specifically designed exam questions, student presentations or performances, or a final paper. Do not use course evaluations or surveys as primary sources for data collection.**

OR: List outcomes, then chart plan:

identified to evaluate based on skill level and outcomes met. Learning Outcomes:

1. Obtain the knowledge and skills to assess the needs, assets and capacities of communities.
2. Have the knowledge and skills to plan health programs.

3. Have the knowledge associated with health program implementation.
4. Obtain the knowledge and understanding of research methodologies associated with health programs.
5. Have the knowledge and skills to administer and manage health programs.
6. Have the knowledge and skills to act as health resource person.
7. Have the knowledge and skills to advocate for health and health education.
8. To develop cultural awareness and sensitivity
9. To develop and apply communication and professional skills.

(In the example below, the program assesses all their outcomes annually, so the assessment year does not need to be included, only a statement indicating these are annually assessed)

| Courses | Learning Outcomes | | | | | | | | |
|--|-------------------|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| CHTH 210 Foundations of Community Health | X | X | X | X | X | X | X | | X |
| FCS 371 Research Methods | X | X | X | X | | X | X | | |
| CHTH 317 Health Behavior Theories | | | | | | X | X | X | X |
| CHTH 428 Health Disparities | X | | | X | | X | X | X | X |
| CHTH 445 Program Planning & Evaluation | X | X | X | X | X | X | X | | X |
| CHTH 498 Internship | | | | X | | X | X | | X |

If it were to be a rotational assessment, it could look like this:

Learning Objectives (LO)

Our students should be able to:

1. Use knowledge of the fundamental terms and concepts of microbiology
2. Design an experiment to test a hypothesis or microbiological concept
3. Perform basic microbiological lab techniques
4. Access and analyze bioinformatic data or large datasets
5. Verbally communicate about fundamental and modern microbiological concepts
6. Communicate in written form about fundamental and modern microbiological concepts

| Year | LO | Course |
|---|----|----------|
| 2015-2016 | 1 | BIOM 360 |
| | 2 | BIOM 455 |
| | 3 | BIOM 441 |
| 2016-2017 | 3 | BIOM 360 |
| | | BIOM 432 |
| 2017-2018 | 4 | BIOM 450 |
| | 5 | BIOM 450 |
| | | BIOM 494 |
| | 6 | BIOH 405 |
| | | BIOB 410 |
| | | BIOM 435 |
| Then repeat cycle for closing the loop report | | |

In both of the above examples, the data source was not included in the tables. For these examples, the assessment (data) sources would need to be included separately.

**b. What are your threshold values for which you demonstrate student achievement?
(Example provided in the table should be deleted before submission)**

| Threshold Values | | |
|--|--|----------------------------------|
| PROGRAM LEARNING OUTCOME | Threshold Value | Data Source |
| 6) Communicate in written form about fundamental and modern microbiological concepts | The threshold value for this outcome is for 75% of assessed students to score above 2 on a 1-4 scoring rubric. | Randomly selected student essays |

2. What Was Done

a) Was the completed assessment consistent with the plan provided? YES _____ NO X

If no, please explain why the plan was altered. Course that was originally planned to be assessed was not offered. We will review all course requirements and realign our assessment schedule. This year we assessed 2020's outcomes.

b) Please provide a rubric that demonstrates how your data was evaluated.

(Example provided below should be deleted before submission – your rubric may be very different, it just needs to explain the criteria used for evaluating student achievement).

Example: Rubric for outcome #6

| Indicators | Beginning - 1 | Developing- 2 | Competent- 3 | Accomplished- 4 |
|--|--|---|--|---|
| Analysis of Information, Ideas, or Concepts | Identifies problem types | Focuses on difficult problems with persistence | Understands complexity of a problem | Provides logical interpretations of data |
| Application of Information, Ideas, or Concepts | Uses standard solution methods | Provides a logical interpretation of the data | Employs creativity in search of a solution | Achieves clear, unambiguous conclusions from the data |
| Synthesis | Identifies intermediate steps required that connects previous material | Recognizes and values alternative problem solving methods | Connects ideas or develops solutions in a clear coherent order | Develops multiple solutions, positions, or perspectives |
| Evaluation | Check the solutions against the issue | Identifies what the final solution should determine | Recognizes hidden assumptions and implied premises | Evaluates premises, relevance to a conclusion and adequacy of support for conclusion. |

This type of rubric can be used for all levels of assessment (the anticipated evaluation score may vary according to the course level). Some rubrics/assessments may be more tailored for courses (e.g. designed to assess outcomes in upper division courses or for lower division) and therefore the scores might be similar across course levels. Or, if you are assessing more basic learning outcomes, you might expect outcomes to be established earlier in the academic career.

3. What Data Were Collected

a) How were data collected? (Please include method of collection and sample size).

Example 1: Outcome #3 assessment was conducted with a group assignment from identified course that had an oral and written presentation component, 17 students participated.

Example 2: Senior thesis conference in which students orally defend their final projects. Faculty and graduate students attend the conference, and are each asked to fill out an assessment on at least 3 different presentations. Questions on the assessment focused on research methodology (questions 7-9, **outcomes 2 & 6**), application of psychology (question 11, **outcome 4**), and information and technology literacy (questions 6 & 10, **outcome 6**). 30 students participated in the assessment.

Example 3: Three short answer essay questions that addressed outcomes 2, 4, 7 were given on course mid-term examination. All exams were assessed (32).

Example 4: Oral presentation was assessed using established rubric for assessment outcomes. 6 students were assessed – day of assessment was randomly chosen by assessment faculty.

NOTE: Student names must not be included in data collection. Totals of successful completions, manner of assessment (publications, thesis/dissertation, or qualifying exam) may be presented in table format if they apply to learning outcomes.

b) Explain the assessment process, and who participated in the analysis of the data.

This is the “how it was done and by whom” section. We highly recommend that assessment artifacts be reviewed by more than then one individual (two is good, three even better).

Example: Each group was assigned scores by two evaluators, using a total of 3 rubrics. A rubric for Assessment of Oral Communication Skills, and a rubric for Assessment of Written Communication Skills, and a rubric for Assessment of Problem Solving Skills. For the rubrics with a 1-5 scale, an average score that was below a 3 was considered to be below expectations, and any average score of 3 or above was considered to meet minimum standards. For the rubric with a 1-4 scale, an average score that was less than or equal to 2 was considered to be below expectations, and any average score of greater than 2 was considered to meet minimum standards. The threshold value for this outcome is for 75% of assessed student to score above 2.

Example: Apply critical thinking skills.

This outcome was evaluated in NUTR 422 Micronutrient Metabolism by Janet Gamble using the Clinical Correlate Panel Presentation assignment. Students select a disease condition, review the research literature and share the findings in terms of the appropriate vitamins and/or minerals that impact that condition. They also provide recommendations for use in future practice as a nutrition professional. The threshold was that 100% of the student earn a B or higher on the assignment. The

threshold was met N= 23/23 (100%) (Note: this is a single instructor evaluation – we would prefer to see a couple of faculty review these results)

Example: Each group had 8 to 10 student members, and there were 3 groups. Three faculty members participate in the review of the group projects, utilizing the provided rubric. (Ideally, in these types of assessments, having an outside evaluator rank student performance is ideal – please include who participates in these type of reviews)

Example: All assessments from students are evaluated by the 5 person program assessment committee.

Example: Short answer essays were scored by three faculty members within the department.

Example: The department head, and one additional faculty member were able to participate in the student’s presentations, along with the faculty of record. The number of assessments were based on the number of students that were presenting on the assessment day – 6 students total were assessed.

4. What Was Learned

Based on the analysis of the data, and compared to the threshold values provided, what was learned from the assessment?

a) Areas of strength: (Fairly straight forward – report on what students did well).

Example: On our assessment of learning outcome 3 (Students will demonstrate an understanding of the role of theory in sociology), we noted a marked improvement in areas of analysis of information, and synthesis of concepts. Students are able to clearly articulate these concepts, which is demonstrated across our curriculum.

b) Areas that need improvement

Example: Assessment based on student exit interview: primary findings from the interview were:

1) Students suggested combining 142 and 313. Take-away is that the 101-142-313 sequence still needs more work; and we need to improve 142 (which will address PLO number 5)

2) Some commented that they would like to see more writing in the curriculum (which will address PLO number 3).

(Note – in each example above the recommendation for improvement addresses a specific outcome – this is something to consider when identifying areas of improvement)

5. How We Responded

a) Describe how “What Was Learned” was communicated to the department, or program faculty. Was there a forum for faculty to provide feedback and recommendations?

This should be a brief description on the method of communication – we want to see faculty involvement in this process, so we are looking for more than “posting the report”. Documentation of faculty recommendations for curriculum or program improvements is a very important aspect to program assessment.

b) Based on the faculty responses, will there any curricular or assessment changes (such as plans for measurable improvements, or realignment of learning outcomes)?

YES _____ NO _____

If yes, when will these changes be implemented?

Noting areas for improvement is only part of the picture. We would like to see an actual plan for implementation for areas of improvement (which would include a timeline).

Please include which outcome is targeted, and how changes will be measured for improvement. If other criteria is used to recommend program changes (such as exit surveys, or employer satisfaction surveys) please explain how the responses are driving department, or program decisions.

Example: After faculty/ department discussions, a number of changes will be made to the program assessment for the assessment year of 2019-2020.

- In place of a single test to measure learning outcome 1, specific questions will be incorporated into exams/assignments in the nine horticulture courses indicated in the curriculum map. While questions will be graded by the instructor for exam points, at least 2 faculty, not instructors in the course, will score the answers.

- Course-appropriate case study questions will be written to measure learning outcome 3. These questions will be incorporated into examinations in the six horticulture courses indicated in the curriculum map. While questions will be graded by the instructor for exam points, at least 2 faculty, not instructors in the course, will score the answers. Questions are being written in October for administration in the fall courses toward the end of the semester.

-We will be seeking out other programs that measure hands-on skills for examples (outcome 2)

Example: ECE&CS faculty conversation at our fall retreat discussed the existing assessment plan included careful reflection on the ECE&CS program options and identified gaps in coursework content and application in field experiences.

c) When will the changes be next assessed?

This can be in coordination with your existing planning schedule – OR if these are issues that will need to be assessed sooner, it should be recorded here (with the plan to update assessment schedule in next-year's report)

Example: We will reassess outcome 1 and 3 during fall semester 2020. We will review examples gathered over the next academic year to see if we can incorporate into our 2020-2021 assessment of outcome 2.

Example: We will be presenting the updated program learning outcomes, along with new assessment cycle and curriculum map in the 2019-2020 assessment report.

Remember: When outcomes (thresholds) are met, there is often no discussion on how to improve a program. Consider other assessment opportunities that can illustrate student success. Consider prerequisite courses, are they meeting program needs, do the courses align to your program outcomes,

and are your outcomes assessable. All of these are methods to demonstrate improving curriculum and/or student learning. Programs need to demonstrate continued quality improvement to meet the requirements of the NWCCU.

6. Closing the Loop

a) Based on assessment from previous years, can you demonstrate program level changes that have led to outcome improvements?

As we are starting out with a new process, there may not be closing the loop activity. However, if you have documentation from previous reports that demonstrate changes and how they have improved (or not) learning outcomes, this is a good location to document your activities.

Example: Concerns regarding Building Practices and Integrated Architecture respectively, that were introduced after the NAAB Accreditation Visit in 2014, have not been fully addressed. But, significant changes were made in the curriculum to include formal coordination between ARCH 535 Advanced Building Systems and ARCH 558 Advanced Building Studio. These changes took place in AY 2015-2016 and will be reviewed in AY 2018 and AY 2019.

Example: In last year's assessment we determined that modifications in PHSX 331 were required to more adequately reflect the computational needs of the students, that insufficient time was spent on coding in Mathematica compared to other program languages, and that a review of what other coding languages are needed should be made. This assessment concurs and represents the review of other coding needs. PHSX 331 has been changed to include PASCAL as the programming language.