2013-2014 ANNUAL ASSESSMENT REPORT TEMPLATE

This template intends to make our annual assessment and its reports simple, clear, and of high quality not only for this academic year but also for the years to come. Thus, it explicitly specifies some of the best assessment practices and/or expectations implied in the four WASC assessment rubrics we have used in the last few years (see the information below* that has appeared in Appendices 1, 2a, 2b, and 7 in the ***Feedback for the 2011-2012 Assessment Report;*** Appendix 2 in the ***Feedback for the 2012-2013 Assessment Report***, and Appendices 5 to 8 in the ***2013-2014 Annual Assessment Guideline)***.

We understand some of our programs/departments have not used and/or adopted these best practices this year, and that is okay. You do not need to do anything extra this year, and ALL YOU NEED TO DO is to report what you have done this academic year. However, we hope our programs will use many of these best practices in the annual assessment in the future.

We also hope to use the information from this template to build a digital database that is simple, clear, and of high quality. If you find it necessary to modify or refine the wording or the content of some of the questions to address the specific needs of your program, please make the changes and highlight them in red. We will consider your suggestion(s). Thank you!

If you have any questions or need any help, please send an email to Dr. Amy Liu (liuqa@csus.edu), Director of University Assessment. We are looking forward to working with you.

*The four WASC rubrics refer to: 1) WASC "Rubric for Assessing the Quality of Academic Program Learning Outcomes"; 2) WASC "Rubric for Assessing the Use of Capstone Experience for Assessing Program Learning Outcomes"; 3) WASC "Rubric for Assessing the Use of Portfolio for Assessing Program Learning Outcomes"; and 4) WASC "Rubric for Assessing the Integration of Student Learning Assessment into Program Reviews".

Part 1: Background Information

B1. Program name: Biological Sciences

B2. Report author(s): Shannon Datwyler

B3. Fall 2012 enrollment: 1,466
Use the *Department Fact Book 2013* by OIR (Office of Institutional Research) to get the fall 2012 enrollment: (http://www.csus.edu/oir/Data%20Center/Department%20Fact%20Book/Departmental%20Fact%20Book.html).

B4. Program type: [SELECT ONLY ONE]

X	1. Undergraduate baccalaureate major
	2. Credential
	3. Master's degree
	4. Doctorate: Ph.D./E.D.D.
	5. Other, specify:

Part 2: Six Questions for the 2013-2014 Annual Assessment

Question 1 (Q1): Program Learning Outcomes (PLO) Assessed in 2013-2014.

Q1.1. Which of the following program learning outcomes (PLOs) or Sac State Baccalaureate Learning Goals did you assess **in 2013-2014**? (See 2013-2014 Annual Assessment Report Guidelines for more details). [**CHECK ALL THAT APPLY]**

X	1. Critical thinking (WASC 1) *
	2. Information literacy (WASC 2)
	3. Written communication (WASC 3)
	4. Oral communication (WASC 4)
	5. Quantitative literacy (WASC 5)
	6. Inquiry and analysis
	7. Creative thinking
	8. Reading
	9. Team work
	10. Problem solving
	11. Civic knowledge and engagement – local and global
	12. Intercultural knowledge and competency
	13. Ethical reasoning
	14. Foundations and skills for lifelong learning
	15. Global learning
	16. Integrative and applied learning
	17. Overall competencies for GE Knowledge
	18. Overall competencies in the major/discipline
	19. Others. Specify any PLOs that were **assessed in 2013-2014 but not included above:** a. b. c.

* One of the WASC's new requirements is that colleges and universities report on the level of student performance **at graduation** in five core areas: **critical thinking, information literacy, written communication, oral communication, and quantitative literacy.**

Q1.1.1. Please provide more detailed information about the PLO(s) you checked above:

To test critical thinking skills in the biological sciences, we used an assignment where students develop and test a hypothesis based on the primary literature. This assignment was given in BIO 188, a course that serves as a capstone for all students in the BA in Biological Sciences and the BS in Biological Sciences with General Biology concentration. In addition, this is a required course for all students in the following concentrations: Cell and Molecular Biology, and Ecology, Evolution and Conservation. In addition, many students take this course as an elective to fulfill other requirements in the Biomedical Sciences concentration. To evaluate critical thinking, we modified the VALUE Critical Thinking rubric to include three dimensions: Use of Evidence, Student's position (thesis development), and Conclusions and Related Outcomes. The other dimensions were excluded from the analysis (rubric shown below). The assignment that was given was common for all students taking the course for the entire 2013-14 academic year and most sections of the course were evaluated in a similar manner. We intend to alternate core

competencies that are evaluated each year using the same capstone assignment (Critical Thinking, Information Literacy, and Written Communication).

Q1.2. Are your PLOs closely aligned with the mission of the university?

X	1. Yes
	2. No
	3. Don't know

Q1.3. Is your program externally accredited (except for WASC)?

	1. Yes
X	2. No **(If no, go to Q1.4)**
	3. Don't know (**Go to Q1.4)**

Q1.3.1. If yes, are your PLOs closely aligned with the mission/goals/outcomes of the accreditation agency?

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

Q1.4. Have you used the *Degree Qualification Profile* (DQP)* to develop your PLO(s)?

	1. Yes
X	2. No, but I know what DQP is.
	3. No. I don't know what DQP is.
	4. Don't know

* **Degree Qualifications Profile (DQP)** – a framework funded by the Lumina Foundation that describes the kinds of learning and levels of performance that may be expected of students who have earned an associate, baccalaureate, or master's degree. Please see the links for more details: http://www.luminafoundation.org/publications/The_Degree_Qualifications_Profile.pdf and http://www.learningoutcomeassessment.org/DQPNew.html.

Question 2 (Q2): Standards of Performance/Expectations for EACH PLO.

Q2.1. Has the program developed/adopted **EXPLICIT** standards of performance/expectations for the PLO(s) you assessed **in 2013-2014 Academic Year**? (For example: We expect 70% of our students to achieve at least a score of 3 on the Written Communication VALUE rubric.)

	1. Yes, we have developed standards/expectations for **ALL** PLOs assessed in 2013-14.
	2. Yes, we have developed standards/expectations for **SOME** PLOs assessed in 2013-14.
X	3. No (**If no, go to Q2.2)**
	4. Don't know (**Go to Q2.2)**
	5. Not Applicable (**Go to Q2.2)**

Q2.1.1. If yes, what are the desired levels of learning, including the criteria and standards of performance/expectations, especially at or near graduation, for **EACH PLO** assessed in 2013-2014 Academic Year? (For example: what will tell you if students have achieved your expected level of performance for the learning outcome.) **Please provide the rubric and/or the expectations that you have developed for EACH PLO one at a time below.** [WORD LIMIT: 300 WORDS FOR EACH PLO]

The assessment results presented for 2013-14 represent a preliminary use of the modified VALUE rubric for Critical Thinking. In the preliminary analysis, we did not set performance standards for students. In the coming academic year, we will make necessary modifications to the rubric and set performance standards for capstone-level students. The rubric used is shown here:

VALUE Critical Thinking Rubric

Modified for Biological Sciences

S. Datwyler & K. McDonald; Sept. 18, 2013

	Capstone – 4	**Milestone – 3**	**Milestone – 2**	**Benchmark – 1**
Evidence *Selecting and using information to investigate a point of view or conclusion*	Presentation of information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Presentation of information makes it clear that there is a recognition of the complexities of the hypothesis Viewpoints of experts are subject to questioning	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Student's position (perspective, thesis/hypothesis)	Specific hypothesis is imaginative, taking into account the complexities of an issue. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific hypothesis takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific hypothesis acknowledges different sides of an issue.	Specific hypothesis is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to the range of evidence that is presented	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

Q2.2. Have you published the **PLO(s)/expectations/rubric(s) you assessed in 2013-2014**?

X	1. Yes
	2. No **(If no, go to Q3.1)**

Q2.2.1. If yes, where were the **PLOs/expectations/rubrics** published? **[CHECK ALL THAT APPLY]**

	1. In **SOME course syllabi/assignments** in the program that claim to introduce/develop/master the PLO(s)
	2. In **ALL course syllabi/assignments** in the program that claim to introduce /develop/master the PLO(s)
	3. In the student handbook/advising handbook
	4. In the university catalogue
	5. On the academic unit website or in the newsletters
	6. In the assessment or program review reports/plans/resources/activities
	7. In the new course proposal forms in the department/college/university
	8. In the department/college/university's strategic plans and other planning documents
	9. In the department/college/university's budget plans and other resource allocation documents
X	10. In other places, specify: **In rubrics used in courses where PLOs were assessed**

Question 3 (Q3): Data, Results, and Conclusions for EACH PLO

Q3.1. Was assessment data/evidence **collected** for 2013-2014?

X	1. Yes
	2. No **(If no, go to Part 3: Additional Information)**
	3. Don't know **(Go to Part 3)**
	4. Not Applicable **(Go to Part 3)**

Q3.2. If yes, was the data **scored/evaluated** for 2013-2014?

X	1. Yes
	2. No **(If no, go to Part 3: Additional Information)**
	3. Don't know **(Go to Part 3)**
	4. Not Applicable **(Go to Part 3)**

Q3.3. If yes, what **DATA** have you collected? What are the **results, findings, and CONCLUSION(s)** for EACH PLO assessed in 2013-2014? In what areas are students doing well and achieving the expectations? In what areas do students need improvement? Please provide a simple and clear summary of the key data and findings, including **tables and graphs** if applicable for EACH PLO one at a time. [WORD LIMIT: 600 WORDS FOR EACH PLO]

Data were collected from student papers that were turned in for all sections of BIO 188 in the 2013-14 academic year. Two sections of the course were offered in both fall and spring. The enrollments varied significantly between sections, with enrollments between 24 and 53 students. In the fall, a total of 74 papers were scored by the instructor teaching the course as part of the grading rubric. Two graders were involved in scoring student work, although each paper was scored by just one grader. Graders were normed by reading 2-3 papers, scoring students independently for all dimensions of the rubric and then discussing differences until there was a consensus. The data reported here reflect just three dimensions of the grading rubric, but these represent the three modified dimensions from the VALUE rubric for critical thinking reported above. Although the assignments were scored by just one or two faculty members, the ultimate goal is to have a subset of papers that are scored by several faculty members that serve on the Biological Sciences Assessment Committee. All 74 student papers were scored and included in the following analysis.

For the three dimensions scored, we found that on average, students scored between the Benchmark 2 and Benchmark 3 level (Table 1).

Table 1. Mean student score for Critical Thinking Dimensions.

	Mean VALUE Rubric Equivalent Score (out of 4 possible)
Critical Thinking: Evidence	2.36
Critical Thinking: Student's Perspective	2.00
Critical Thinking: Conclusions	2.64

Students seem to perform better in presenting evidence and developing logical conclusions than in developing novel, complex hypotheses. Furthermore, this indicates some student weaknesses with regard to synthesizing multiple positions in their writing. Students seem to perform relatively well in developing logical conclusions based on the range of evidence presented.

When examining the percentage of students that meet or exceed each performance standard, most students score at least a 2 or higher for the three rubric dimensions (Figure 1). These results show that a minority of students score 3 or higher for any of the three scored dimensions. Most students score a 2 or higher. Once again, we see that students show weaknesses in student's perspective, indicating that students are not performing as well in synthesis of information as they are in presentation of logical evidence and logical conclusions in their work. The assessment committee will discuss these results over the next academic year and determine whether adjustments should be made to the rubric or whether this represents weaknesses within the program. The committee will also begin the process of establishing performance standards for Critical Thinking.

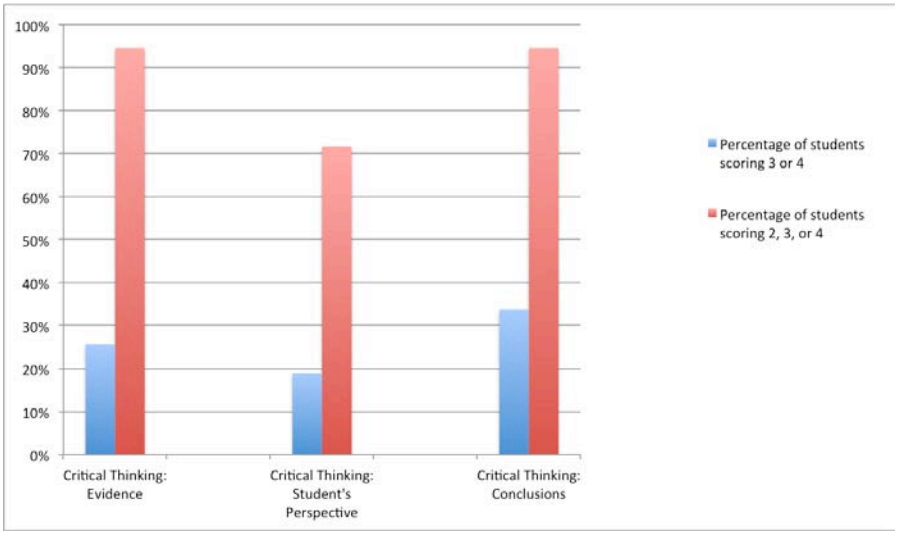

Figure 1. Percentage of students scoring 3 or above and 2 or above for each critical thinking rubric dimension.

Q3.4. Do students meet the expectations/standards of performance as determined by the program and achieved the learning outcomes? [PLEASE MAKE SURE THE PLO YOU SPECIFY HERE IS THE SAME ONE YOU CHECKED/SPECIFIED IN Q1.1].

Q3.4.1. First PLO: **Critical Thinking**

	1. Exceed expectation/standard
	2. Meet expectation/standard
	3. Do not meet expectation/standard
X	4. No expectation/standard set
	5. Don't know

[NOTE: IF YOU HAVE MORE THAN ONE PLO, YOU NEED TO REPEAT THE TABLE IN Q3.4.1 UNTIL YOU INCLUDE ALL THE PLO(S) YOU ASSESSED IN 2013-2014.]

Q3.4.2. Second PLO: [_____]

	1. Exceed expectation/standard
	2. Meet expectation/standard
	3. Do not meet expectation/standard
	4. No expectation/standard set
	5. Don't know

Question 4 (Q4): Evaluation of Data Quality: Reliability and Validity.

Q4.1. How many PLOs **in total** did your program **assess in the 2013-2014 academic year**? **1**

Q4.2. Please choose **ONE ASSESSED PLO** as an example to illustrate how you use direct, indirect, and/or other methods/measures to collect data. If you only assessed one PLO **in 2013-14**, YOU CAN SKIP this question. If you assessed MORE THAN ONE PLO, please check **ONLY ONE PLO BELOW EVEN IF YOU ASSESSED MORE THAN ONE PLO IN 2013-2014.**

	1. Critical thinking (WASC 1) [1]
	2. Information literacy (WASC 2)
	3. Written communication (WASC 3)
	4. Oral communication (WASC 4)
	5. Quantitative literacy (WASC 5)
	6. Inquiry and analysis
	7. Creative thinking
	8. Reading
	9. Team work
	10. Problem solving
	11. Civic knowledge and engagement – local and global
	12. Intercultural knowledge and competency
	13. Ethical reasoning
	14. Foundations and skills for lifelong learning
	15. Global learning
	16. Integrative and applied learning
	17. Overall competencies for GE Knowledge
	18. Overall competencies in the major/discipline
	19. Other PLO. Specify:

Direct Measures

Q4.3. Were direct measures used to assess this PLO?

X	1. Yes
	2. No **(If no, go to Q4.4)**
	3. Don't know **(Go to Q4.4)**

Q4.3.1. Which of the following DIRECT measures were used? **[Check all that apply]**

X	1. Capstone projects (including theses, senior theses), courses, or experiences
	2. Key assignments from other CORE classes
	3. Key assignments from other classes
	4. Classroom based performance assessments such as simulations, comprehensive exams, critiques
	5. External performance assessments such as internships or other community based projects
	6. E-Portfolios
	7. Other portfolios
	8. Other measure. Specify:

Q4.3.2. Please provide the direct measure(s) **[key assignment(s)/project(s)/portfolio(s)]** that you used to collect the data. [WORD LIMIT: 300 WORDS]

The following is the prompt given to students prior to completing the capstone paper assignment:

Evolution

Bio 188

Final Paper

The purpose of this assignment is to formulate a novel evolutionary-based hypothesis based on a review of data from multiple sources in the primary literature. You will summarize the current knowledge in the topic area you have chosen and use the evidence presented in a novel way to address your hypothesis. This does not have to be a topic that is typically considered under the realm of evolutionary biology.

The Assignment: Your task is to take a specific topic, develop a clear hypothesis (thesis statement) that is from an evolutionary context and present evidence for this hypothesis in your paper from the primary literature. This could be from the basis of either microevolutionary change (i.e., selection within populations), evolution of complex traits, macroevolutionary changes, or any other aspect related to evolutionary biology. The evidence that you will use should come from the primary literature (tables, figures, observations, etc.). Please include tables/figures from at least two supporting papers along with interpretation of these figures from the context of your own hypothesis. You are required to cite and use examples from least four sources from the primary literature as part of this assignment. You may use more sources, but you may also find that you need to read sources that are not included in the final paper

in order to give you enough background information to write an effective argument. Do not include citations that aren't related to your hypothesis.

Details on Paper Structure: Within the paper, the scope of the hypothesis should be clearly defined and relate directly to your hypothesis. The hypothesis should be presented in a way that the complexities of the hypothesis are made clear and take into account the complexities of the issue. Furthermore, the assumptions that you and the authors are making should be made clear in the text and the conclusion should be tied to the evidence that you are presenting for your hypothesis. Your writing should be clearly focused on the assignment and the content should be appropriate, relevant and compelling within the context of the paper. The organization, content and stylistic choices that you make should be consistent with what you would see in a review paper published in a typical scientific journal. If you are unsure of the format, I would recommend looking at the format presented in some of the journals in relevant disciplines (i.e., Annual Reviews…, Evolution, Cell, etc.). Be sure to use credible, relevant sources to support your ideas and straightforward language to convey your purpose accurately to the reader. With respect to figures and figure explanations, be sure to accurately explain the information that is presented in figures/tables, draw reasonable conclusions from the evidence that is presented, and clearly tie this information to the purpose of your assignment.

Paper Length: No more than 5 pages, double-spaced of text; two additional pages may be included, one for figures and one for literature citations. The assignment will be turned in electronically through SacCT.

Q4.3.2.1. Was the direct measure(s) [**key assignment(s)/project(s)/portfolio(s**)] aligned directly with the rubric/criterion**?**

X	1. Yes
	2. No
	3. Don't know

Q4.3.3. Was the direct measure (s) [key assignment(s)/project(s)/portfolio(s)] aligned directly with the PLO?

X	1. Yes
	2. No
	3. Don't know

Q4.3.4. How was the evidence scored/evaluated? **[Select one only**]

	1. No rubric is used to interpret the evidence (If checked, go to Q4.3.7)
	2. Use rubric developed/modified by the faculty who teaches the class
X	3. Use rubric developed/modified by a group of faculty
	4. Use rubric pilot-tested and refined by a group of faculty
	5. Use other means. Specify:

Q4.3.5. What rubric/criterion was adopted to score/evaluate the above key assignments/projects/portfolio? **[Select one only**]

	1. The VALUE rubric(s)

X	2. Modified VALUE rubric(s)
	3. A rubric that is totally developed by local faculty
	4. Use other means. Specify:

Q4.3.6. Was the rubric/criterion aligned directly with the PLO?

X	1. Yes
	2. No
	3. Don't know

Q4.3.7. Were the evaluators (e.g., faculty or advising board members) who reviewed student work calibrated to apply assessment criteria in the same way?

X	1. Yes
	2. No
	3. Don't know

Q4.3.8. Were there checks for inter-rater reliability?

X	1. Yes
	2. No
	3. Don't know

Q4.3.9. Were the sample sizes for the direct measure adequate?

X	1. Yes
	2. No
	3. Don't know

Q4.3.10. How did you select the sample of student work (papers, projects, portfolios, etc)? Please briefly specify here:

For the preliminary trial of both the capstone assignment and associated rubrics, all student papers that were turned in were scored by faculty teaching the course and graders. The modified VALUE rubric was incorporated into the grading rubric in order to get a sense of how the rubric could be applied to the capstone assignment. It is the intent of the Biological Sciences Assessment Committee that scoring of the assignment for assessment purposes will be taken over by the committee or a group of interested faculty in a manner which allows calibration of reviewers and checks for inter-rater reliability.

Indirect Measures

Q4.4. Were indirect measures used to assess the PLO?

	1. Yes
X	2. No **(If no, go to Q4.5)**

Q4.4.1. Which of the following indirect measures were used?

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

Q4.4.2. If surveys were used, were the sample sizes adequate?

	1. Yes
	2. No
	3. Don’t know

Q4.4.3. If surveys were used, please briefly specify how you select your sample? What is the response rate?

Other Measures

Q4.5. Were external benchmarking data used to assess the PLO?

	1. Yes
X	2. No **(If no, go to Q4.6)**

Q4.5.1. Which of the following measures was used?

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

Q4.6. Were other measures used to assess the PLO?

X	1. Yes
	2. No **(Go to Q4.7)**
	3. Don't know **(Go to Q4.7)**

Q4.6.1. If yes, please specify: [_____]

Alignment and Quality

Q4.7. Please describe how you collected the data? For example, in what course(s) (or by what means) were data collected? How reliable and valid is the data? [WORD LIMIT: 300 WORDS]

Data were collected from a capstone paper in BIO 188 (Evolution), a course that is primarily taken by senior-level students in Biological Sciences. All students were required to complete the paper. Because this course has several prerequisites, most students take the course in the last year of their program and approximately 95% of the students in the course are Biological Sciences majors. Therefore, we feel that the results are indicative of student performance close to the time of graduation and reflects student learning as part of the Biological Sciences curriculum. Because the sample size (n=74) represents all students who took the course in the Fall 2013 semester, we feel that this is a good sampling of the student population.

Q4.8. How many assessment tools/methods/measures **in total** did you use to assess this PLO? **1**
NOTE: IF IT IS ONLY ONE, GO TO Q5.1.

Q4.8.1. Did the data (including all the assignments/projects/portfolios) from all the different assessment tools/measures/methods directly align with the PLO?

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

Q4.8.2. Were **ALL** the assessment tools/measures/methods that were used good measures for the PLO?

	1. Yes
	2. No

	3. Don't know

Question 5 (Q5): Use of Assessment Data.

Q5.1. To what extent have the assessment results **from 2012-2013** been used for? **[CHECK ALL THAT APPLY]**

	Very Much (1)	**Quite a Bit (2)**	**Some (3)**	**Not at all (4)**	**Not Applicable (9)**
1. Improving specific courses				X	
2. Modifying curriculum				X	
3. Improving advising and mentoring				X	
4. Revising learning outcomes/goals			X		
5. Revising rubrics and/or expectations	X				
6. Developing/updating assessment plan	X				
7. Annual assessment reports	X				
8. Program review				X	
9. Prospective student and family information				X	
10. Alumni communication				X	
11. WASC accreditation (regional accreditation)				X	
12. Program accreditation				X	
13. External accountability reporting requirement				X	
14. Trustee/Governing Board deliberations				X	
15. Strategic planning			X		
16. Institutional benchmarking				X	
17. Academic policy development or modification				X	
18. Institutional Improvement			X		
19. Resource allocation and budgeting			X		
20. New faculty hiring				X	
21. Professional development for faculty and staff				X	
22. Other Specify:					

Q5.1.1. Please provide one or two best examples to show how you have used the assessment data above.

Because the data collected in 2013-14 represent part of an assessment plan that is currently being developed in Biological Sciences, the data have not yet been used for program assessment. However, we have started a conversation among members of the assessment committee about the effectiveness of the critical thinking VALUE rubric and are currently working on modifications to the rubric in order to allow faculty to more easily and consistently apply the rubric to student work. We hope that this rubric, along with three other VALUE rubrics (Information Literacy, Written Communication and Quantitative Reasoning) will eventually be used to evaluate student work in several courses, including research-based capstone courses within each specific concentration. Furthermore, this pilot study has also shown us that class sizes in courses where capstone projects are assigned needs to be capped at a reasonable size. In the Fall 2013 semester, the same faculty member was assigned to both sections of BIO 188, with class sizes of 55 in one section and 24 in the other. With 55 students in one section, evaluation of this type of assignment is very difficult. Therefore, we have realized that we must better plan to limit class sizes to 30 or fewer in capstone classes in the future.

Q5.2. As a result of the **assessment effort in 2013-2014** and based on the prior feedbacks from OAPA, do you anticipate making any changes for your program (e.g., course structure, course content, or modification of program learning outcomes)?

	1. Yes
X	2. No **(If no, go to Q5.3)**
	3. Don't know **(Go to Q5.3)**

Q5.2.1. What changes are anticipated? By what mechanism will the changes be implemented? How and when will you assess the impact of proposed modifications? [WORD LIMIT: 300 WORDS]

Q5.2.2. Is there a follow-up assessment on these areas that need improvement?

X	1. Yes
	2. No
	3. Don't know

Q5.3. Many academic units have collected assessment data on aspects of a program that are not related to program learning outcomes (i.e., impacts of an advising center, etc.). If your program/academic unit has collected assessment data in this way, please briefly report your results here. [WORD LIMIT: 300 WORDS]

Question 6 (Q6). Which program learning outcome(s) do you plan to assess next year?

X	1. Critical thinking (WASC 1) [1]
X	2. Information literacy (WASC 2)
	3. Written communication (WASC 3)
	4. Oral communication (WASC 4)
	5. Quantitative literacy (WASC 5)
	6. Inquiry and analysis
	7. Creative thinking
	8. Reading
	9. Team work
	10. Problem solving
	11. Civic knowledge and engagement – local and global
	12. Intercultural knowledge and competency
	13. Ethical reasoning
	14. Foundations and skills for lifelong learning
	15. Global learning
	16. Integrative and applied learning
	17. Overall competencies for GE Knowledge
	18. Overall competencies in the major/discipline
	19. Others. Specify any PLOs that the program is going to **assess but not included above:** a. b. c.

Part 3: Additional Information

A1. In which academic year did you **develop** the current assessment plan?

X	1. Before 2007-2008
	2. 2007-2008
	3. 2008-2009
	4. 2009-2010
	5. 2010-2011
	6. 2011-2012
	7. 2012-2013
	8. 2013-2014
	9. Have not yet **developed** a formal assessment plan

A2. In which academic year did you last **update** your assessment plan?

	1. Before 2007-2008
	2. 2007-2008
	3. 2008-2009
	4. 2009-2010
	5. 2010-2011
	6. 2011-2012
	7. 2012-2013
	8. 2013-2014
X	9. Have not yet **updated** the assessment plan

A3. Have you developed a curriculum map for this program?

X	1. Yes
	2. No
	3. Don't know

A4. Has the program indicated explicitly where the assessment **of student learning** occurs in the curriculum?

X	1. Yes
	2. No
	3. Don't know

A5. Does the program have any capstone class?

X	1. Yes
	2. No
	3. Don't know

A5.1. If yes, please list the course number for each capstone class:

BIO 188 (BA, Biological Sciences, BS, Biological Sciences, General Biology Concentration)
BIO 187: Advanced Cell Biology (Cell and Molecular Biology Concentration)
BIO 178: Molecular Ecology (Ecology, Evolution and Conservation Concentration)
BIO 145: Diversity of Microorganisms (Microbiology Concentration)
BIO 151: Advanced Forensic Biology (Forensic Biology Concentration)

A6. Does the program have **ANY** capstone project?

X	1. Yes
	2. No
	3. Don't know

A7. Name of the academic unit: **Biological Sciences**

A8. Department in which the academic unit is located: **Biological Sciences**

A9. Department Chair's Name: **Jennifer Lundmark**

A10. Total number of annual assessment reports submitted by your academic unit for 2013-2014: 1

A11. College in which the academic unit is located:

	1. Arts and Letters
	2. Business Administration
	3. Education
	4. Engineering and Computer Science
	5. Health and Human Services
X	6. Natural Science and Mathematics
	7. Social Sciences and Interdisciplinary Studies
	8. Continuing Education (CCE)
	9. Other, specify:

Undergraduate Degree Program(s):

A12. Number of undergraduate degree programs the academic unit has: **8**

A12.1. List all the name(s):

BA Biological Sciences
BS Biological Sciences (General Biology Concentration)
BS Biological Sciences (Biomedical Sciences Concentration)
BS Biological Sciences (Cell and Molecular Biology Concentration)
BS Biological Sciences (Clinical Laboratory Sciences Concentration)
BS Biological Sciences (Ecology, Evolution and Conservation Concentration)
BS Biological Sciences (Forensic Biology Concentration)
BS Biological Sciences (Microbiology Concentration)

A12.2. How many concentrations appear on the diploma for this undergraduate program? **7**

Master Degree Program(s):

A13. Number of Master's degree programs the academic unit has: **5**

A13.1. List all the name(s):

MA Biological Sciences
MA Biological Sciences (Stem Cell Concentration)
MS Biological Sciences (No Concentration)
MS Biological Sciences (Ecology, Evolution and Conservation Concentration)

MS Biological Sciences (Cell and Molecular Biology Concentration)

A13.2. How many concentrations appear on the diploma for this master program? 3

Credential Program(s):
A14. Number of credential degree programs the academic unit has: 0
A14.1. List all the names: [_____]

Doctorate Program(s)
A15. Number of doctorate degree programs the academic unit has: 0
A15.1. List the name(s): [_____]

A16. Would this assessment report apply to other program(s) and/or diploma concentration(s) in your academic unit*?

X	1. Yes
	2. No

*If the assessment conducted for this program (including the PLO(s), the criteria and standards of performance/expectations you established, the data you collected and analyzed, the conclusions of the assessment) is the same as the assessment conducted for other programs within the academic unit, you only need to submit one assessment report.

16.1. If yes, please specify the name of each program:

BA Biological Sciences
BS Biological Sciences (General Biology Concentration)
BS Biological Sciences (Cell and Molecular Biology Concentration)
BS Biological Sciences (Ecology, Evolution and Conservation Concentration)

16.2. If yes, please specify the name of each diploma concentration: _____

BA Biological Sciences
BS Biological Sciences (General Biology Concentration)
BS Biological Sciences (Cell and Molecular Biology Concentration)
BS Biological Sciences (Ecology, Evolution and Conservation Concentration)