2018 - 2019
Annual Program Assessment Report

The Office of Academic Program Assessment
California State University, Sacramento

For more information visit our **website**
or **contact us** for more help.

This year OAPA has refined the annual assessment reporting process to make it simple, clear, and of high quality at the same time.

IMPORTANT REMINDER:
Please use the "Guidelines" and "Examples for Answering Open-Ended Questions" to answer each question in the template as you complete the report. Please provide and attach the following information:

1. PLO Assessed **(Q1.1, Q2.1)**
2. Definition of the PLO(s) **(Q2.1.1)**
3. Rubrics and Explicit Program (not class) Standards of Performance/Expectations **(Q2.3)**
4. Direct Measures **(Q3.3.2)**
5. Data Table(s) **(Q4.1)**
6. Curriculum Map **(Q21.1)**
7. Most Updated Assessment Plan **(Q20.2)**

Please provide only relevant information and limit all of your attachments to 30 pages.

Please save your progress. There is NO "submit" button. After July 1, 2019, the saved report will be considered the final submission.

DEADLINE TO SUBMIT: JULY 1, 2019.

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

BA Liberal Studies

OR enter program name:

Section 1: Report All of the Program Learning Outcomes Assessed

Question 1: All the Program Learning Outcomes Assessed

Q1.1.
Which of the following Program Learning Outcomes (PLOs) including Sac State Baccalaureate Learning Goals (BLGs)or 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. **Research**
☐ 21A. Other, specify any assessed PLOs not included above:

a.
b.
c.

☐ 21B. **Check here if your program has not collected any data for any PLOs**. Please go directly to Q6 (skip Q1.3.a. to Q5.3.1.)

Q1.3.a.
Are your PLOs closely aligned with the mission and/or the strategic plan of the university?

◉ 1. Yes
○ 2. No
○ 3. Don't know

Undo

(Remember: Save your progress. There is NO "submit" button. After July 1, 2019, the saved report will be considered the final submission.)

Section 2: Report One Learning Outcome in Detail

Question 2: Detailed Information 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):

Quantitative Literacy

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

Q2.1.1.
Please provide the definition for this PLO **(See Appendix 15 Sample Answer to Q2.1.1).**

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and com fort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create soph isticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, ma thematical equations, etc., as appropriate).

Q2.2.

Has the program developed or adopted ***explicit program standards of performance/expectations*** for this PLO? (e.g. "We expect 80% of our students to achieve at least a score of 3 or higher in all dimensions of the Written Communication VALUE rubric.")

- (●) 1. Yes
- ( ) 2. No
- ( ) 3. Don't know
- ( ) 4. N/A

Undo

Q2.2.a.
Please provide the standards of performance/expectations for this PLO:

Our expectation is 60% of our students will score 3 or above and 80 percent will score 2 and above using theVA...

Q2.3.
Please **provide and/or attach the rubric(s)** that you used to evaluate your assignment**(**
See Appendix 15 Sample Answer to Q2.3):

See attached.

Click here to attach a file

QuantitativeLiteracyValueRubric.pdf
221.32 KB

Q2.4. PLO	Q2.5. Stdrd	Q2.6. Rubric	Please indicate where you have published the **PLO**, the **standard (stdrd)** of performance, and the **rubric** that was used to measure the PLO:
☐	☐	☐	1. In **SOME** course syllabi/assignments in the program that address the PLO
☐	☐	☐	2. In **ALL** course syllabi/assignments in the program that address the PLO
☐	☐	☐	3. In the student handbook/advising handbook
☐	☐	☐	4. In the university catalogue
☐	☐	☑	5. On the academic unit website or in newsletters
☐	☐	☐	6. In the assessment or program review reports, plans, resources, or activities
☐	☐	☐	7. In 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
☐	☐	☐	10. Other, specify:

Question 3: Data Collection Methods and Evaluation of Data Quality for the Selected PLO

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**)

Undo

Q3.1.1.
How many assessment tools/methods/measures **in total** did you use to assess this PLO?

Don't know

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**)

Undo

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:

The following six areas of quantitative literacy were assessed using the Association of American Colleges and Universities Quantitative Literacy VALUE Rubric. Problems from the Math 107B final were used to assess Interpretation and Representation. A set of in-class problems were given to assess Interpretation, Representation, Calculation, Application/Analysis, Assumptions, and Communication. The assessment was administered to one section of Math 107B during Spring 2019.

(Remember: Save your progress. There is NO "submit" button. After July 1, 2019, the saved report will be considered the final submission.)

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**)

Undo

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
- [x] 2. Key assignments from required classes in the program
- [ ] 3. Key assignments from elective classes
- [x] 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 **attach the assignment instructions that the students received to complete the assignment (** **See Appendix 1 Sample Answer to Q3.3.2**)**:**

See Attached.

2019 LIBS MATH 107B assessment problem.pdf
44.41 KB

Click here to attach a file

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.**)

Undo

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

Undo

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

Undo

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

Undo

Q3.5.
Please enter the number (#) of faculty members who participated in planning the assessment data **collection** of the selected PLO?

3

Q3.5.1.
Please enter the number (#) of faculty members who participated in the **evaluation** of the assessment data for the selected PLO?

3

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

Undo

Q3.6.
How did you **select** the sample of student work (papers, projects, portfolios, etc.)?

Liberal Studies majors are required to take MATH 107B. This courses is exclusively for Liberal Studies majors.
One section of MATH 107B out of three sections was chosen for review.

Q3.6.1.
How did you **decide** how many samples of student work to review?

All students in the selected MATH 107B course were reviewed.

Q3.6.2a.
Please enter the number (#) of students ***from ONLY your program*** that were assessed for this program learning outcome (not all students in the class).

19

Q3.6.3a.
Please enter the number (#) of samples of student work ***from ONLY your program*** that were evaluated for this program learning outcome.
19

Q3.6.4.
Was the sample size of student work for this program assessment adequate for assessing this program learning outcome?
- (•) 1. Yes
- ( ) 2. No
- ( ) 3. Don't know

Undo

(Remember: Save your progress. There is NO "submit" button. After July 1, 2019, the saved report will be considered the final submission.)

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**)

Undo

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:

Click here to attach a file **Click here to attach a file**

Q3.7.2.
If surveys were used, how was the sample size **decided**?

Q3.7.3.
If surveys were used, how did you **select** your sample:

Q3.7.4.
If surveys were used, please enter the response rate:

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**)

Undo

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**)

Undo

Q3.8.3.
If other measures were used, please specify:

The Liberal Studies Program also utilizes the Department Factbook published by the Office of Institutional Research, Effectiveness, & Planning, as well as Cognos for aditional information on the number of majors, retention rates, average student GPAs, Good Standing, and graduation rates.

Click here to attach a file Click here to attach a file

(Remember: Save your progress. There is NO "submit" button. After July 1, 2019, the saved report will be considered the final submission.)

Question 4: Data, Findings, and Conclusions

Q4.1.
Please provide tables and/or graphs to summarize the assessment data, findings, and conclusions for the selected PLO in **Q2.1** (see Appendix 12 in our Feedback Packet Example.) Please do **NOT** include student names and other confidential information. This is going to be a **PUBLIC** document:

Figure 1
Liberal Studies Annual Assessment
Spring 2019
Quantitative Literacy
Math 107B

N = 19

	N	# of 4s Captstone	# of 3s Milestone	# of 2s Milestone	# of 1s Benchmark
Interpretation	19	13	3	3	0
Representation	19	14	3	0	2
Calculation	18	14	4	0	0
Application/Analysis	12	3	5	3	1
Assumptions	18	8	3	6	1
Communication	18	13	4	1	0

Figure 2
Liberal Studies Annual Assessment
Spring 2019
Quantitative Literacy
Math 107B

	% of 4s Capstone	% of 3s Milestone	% of 2s Milestone	% of 1s Benchmark
Interpretation	68.4	15.8	15.8	0.0
Representation	73.7	15.8	0.0	10.5
Calculation	77.8	22.2	0.0	0.0
Application/Analysis	25.0	41.7	25.0	8.3
Assumptions	44.4	16.7	33.3	5.6
Communication	72.2	22.2	5.6	0.0

Figure 1_2019.docx
12.04 KB

Figure _2_2019.docx
12.02 KB

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 **(See Appendix 15 Sample Answers to Q4.1-Q4.3)**?

Our expecation is 60% of our students will score 3 or above and 80 percent will score 2 and above using the VALUE Rubric. Students met expectations in all areas, but Application/Analysis and Assumptions had the lowest percentage in category 4 (Capstone).

As indicated in the preface to the Quantitative Literacy VALUE Rubric, the difficulty of the problem may affect the QL score. They write in the Framing Language section: "Finally, QL skills can be applied to a wide array of problems of varying difficulty, confounding the use of this rubric. For example, the same studentmight demonstrate highl levels of QL achievement when working on a simplistic problem and low levels of QL achievement when working on a very complex problem...In this context that would mean giving one score for the complexity of the problem and another score for the QL achievement in solving the problem."

This did show up when assessing Application/Analysis and Assumptions because the chosen problem was in the area of proportional reasoning which tends to be a more difficulty area for students. As a result, we see that the scores in those two areas were lower than the rest. However, even without the difficulty of the topic, we do think it indicates that some extra thought needs to be put into improving our students' achievements in the area of Application/Analysis and Assumptions.

NOTE: In-class test questions related to the various areas of Qualitative Literacy were administered at different points in the semester. This is why there is variation in the number of students completing each test question.

Quantitative Literacy VALUE Rubric Association of American Colleges & Universities.html
62.31 KB

Click here to attach a file

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

Undo

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

Undo

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

Undo

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**)

Undo

Q5.1.1.
Please describe ***what changes*** you plan to make in your program as a result of your assessment of this PLO.

Faculty from Department of Mathematics who teach courses for Liberal Studies majors (MATH 17, MATH 107A, and Math 107B) will review the finding of this assessment along with the VALUE Rubric for Quantitative Literacy. They will take note of the Framing Language and develop assignments and problem sets that are better suited for, and are aligned with, the Value Rubric.

Q5.1.2.
Do you have a plan to assess the ***impact of the changes*** that you anticipate making?

- (●) 1. Yes, describe your plan:

Faculty from the Department of Mathematics will continue to assess students in their course, develop appropriate assignments and problem sets that could be integrated into all the required courses for Liberal Studies majors. Qualitative Literacy will be formally assessed again in another annual report for the Office of Program Assessment no later than the summer of 2022 (three years from now).

- ( ) 2. No
- ( ) 3. Don't know

Undo

Q5.2.

To what extent did you apply **previous assessment results** collected through your program in the following areas? Undo 1-12 Undo 12-23	1. Very Much	2. Quite a Bit	3. Some	4. Not at All	5. N/A
1. Improved specific courses	( )	( )	(●)	( )	( )
2. Modified curriculum	( )	( )	(●)	( )	( )
3. Improved advising and mentoring	( )	(●)	( )	( )	( )
4. Revised learning outcomes/goals	( )	( )	( )	(●)	( )
5. Revised rubrics and/or expectations	( )	( )	(●)	( )	( )
6. Developed/updated assessment plan	( )	( )	(●)	( )	( )
7. Annual assessment reports	( )	( )	(●)	( )	( )
8. Program review	( )	( )	( )	(●)	( )
9. Prospective student and family information	( )	( )	( )	( )	(●)

10. Alumni communication	○	○	○	○	◉
11. WSCUC accreditation (regional accreditation)	○	○	○	○	◉
12. Program accreditation	○	○	◉	○	○
13. External accountability reporting requirement	○	○	◉	○	○
14. Trustee/Governing Board deliberations	○	○	○	○	◉
15. Strategic planning	○	○	○	○	◉
16. Institutional benchmarking	○	○	○	◉	○
17. Academic policy development or modifications	○	○	○	○	◉
18. Institutional improvement	○	○	○	○	◉
19. Resource allocation and budgeting	○	○	○	○	◉
20. New faculty hiring	○	○	○	○	◉
21. Professional development for faculty and staff	○	○	◉	○	○
22. Recruitment of new students	○	○	○	◉	○
23. Other, specify: See below.	○	◉	○	○	○

Q5.2.1.
Please provide a detailed example of how you used the assessment data above:

See responses in Q5.1.1 and Q5.1.2. Starting engaged discussion among faculty members regarding Quantititative Literacy and how best address the VALUE Rubric and Framing Language.

Q5.3. To what extent did you apply **previous assessment feedback** from the Office of Academic Program Assessment in the following areas? Undo 1-9	1. Very Much	2. Quite a bit	3. Some	4. Not at All	5. N/A
1. Program Learning Outcomes	○	◉	○	○	○
2. Standards of Performance	○	◉	○	○	○
3. Measures	○	◉	○	○	○
4. Rubrics	○	◉	○	○	○
5. Alignment	○	◉	○	○	○
6. Data Collection	○	◉	○	○	○
7. Data Analysis and Presentation	○	◉	○	○	○
8. Use of Assessment Data	○	◉	○	○	○
9. Other, please specify:	○	○	○	○	○

Q5.3.1.
Please share with us an example of how you applied **previous feedback** from the Office of Academic Program Assessment in any of the areas above:

This is the second year in a row that Quantitative Literacy was assessed for Liberal Studies students. The results of the 2019 assessment were improvements from the 2018 assessment because of more attention to the VALUE rubric and the areas for Quantitative Literacy. However, there is still a need to be more consistent in administering the assessment to all the students in the course. As stated above in Q4.2, in class test questions related to the various areas of Qualitative Literacy were administered at different points in the semester. This is why there is variation in the number of students completing each test question.

(Remember: Save your progress. There is NO "submit" button. After July 1, 2019, the saved report will be considered the final submission.)

Section 3: Report Other Assessment Activities

Other Assessment Activities

Q6.
If your program/academic unit conducted assessment activities that are **not directly related to the PLOs** for this year (i.e. impacts of an advising center, etc.), please provide those activities and results here:

N/A

Click here to attach a file Click here to attach a file

Q6.1.
Please explain how the assessment activities reported in **Q6** will be linked to any of your PLOs and/or PLO assessment in the future and to the mission, vision, and the strategic planning for the program and the university:

N/A

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. **Research**
- ☐ 21. Other, specify any PLOs not included above:

a.

b.

c.

Q8.
Please explain how this year's assessment activities help you address recommendations from your department's last program review?

Liberal Studies will continue to utilize the VALUE Rubrics as the core to our annual assessments.

Q9. Please attach any additional files here:

Liberal Studies Aligned Student Learning Outcomes.pdf
16.94 KB

Click here to attach a file

Click here to attach a file

Click here to attach a file

Q9.1.
If you have attached **any** files to this form, please list **every** attached file here:

Quantitative Literacy Rubric

Assessment Problems

Figure 1 Assessment (Numbers)

Figure 2 Assessment (Percentages)

Liberal Studies Aligned Student Learning Outcomes

Liberal Studies Roadmap

Section 4: Background Information about the Program

Program Information (**Required**)

Program:

(If you typed in your program name at the beginning, please skip to **Q11**)

Q10.
Program/Concentration Name: [skip if program name is already selected or appears above]
BA Liberal Studies

Q11.
Report Author(s):
Timothy P. Fong

Q11.1.
Department Chair/Program Director:
Timothy P. Fong

Q11.2.
Assessment Coordinator:
Timothy P. Fong

Q12.
Department/Division/Program of Academic Unit (select):
Liberal Studies

Q13.
College:
College of Social Sciences & Interdisciplinary Studies

Q14.
What is the total enrollment (#) for Academic Unit during assessment (see Departmental Fact Book):
502

Q15.
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:

Undo

Q16. Number of **undergraduate degree programs** the academic unit has?
2

Q16.1. List all the names:
Pre-Credential

General (Non-teaching)

Q16.2. How many concentrations appear on the diploma for this undergraduate program?
10+

Q17. Number of **master's degree programs** the academic unit has?

0

Q17.1. List all the names:

Q17.2. How many concentrations appear on the diploma for this master's program?

0

Q18. Number of **credential programs** the academic unit has?

0

Q18.1. List all the names:

Q19. Number of **doctorate degree programs** the academic unit has?

0

Q19.1. List all the names:

When was your **Assessment Plan**... Undo	1. Before 2012-13	2. 2013-14	3. 2014-15	4. 2015-16	5. 2016-17	6. 2017-18	7. No Plan	8. Don't know
Q20. Developed?	○	○	○	◉	○	○	○	○
Q20.1. Last updated?	○	○	○	◉	○	○	○	○

Q20.2. (Required)
Please **obtain** and **attach** your latest **assessment plan**:

Liberal Studies Aligned Student Learning Outcomes.pdf
16.94 KB

Q21.
Has your program developed a **curriculum map? Please note: A curriculum map is not a roadmap. A roadmap is a graphical representation of the courses students must take to graduate. A curriculum map is the matrix that represents in which course a certain program learning outcome (PLO), student learning outcome (SLO), or course learning outcome (CLO) was introduced, developed, and/or mastered.**

- ◉ 1. Yes
- ○ 2. No
- ○ 3. Don't know

Undo

Q21.1.

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

LIBS Roadmap.docx
149.43 KB

Q22.
Has your program indicated explicitly in the curriculum map where assessment **of student learning** occurs?
- ○ 1. Yes
- ◉ 2. No
- ○ 3. Don't know

Undo

Q23.
Does your program have a capstone class?
- ○ 1. Yes, specify:

- ◉ 2. No
- ○ 3. Don't know

Undo

Q23.1.
Does your program have a capstone project(s)?
- ○ 1. Yes
- ◉ 2. No
- ○ 3. Don't know

Undo

Q24.
BEFORE YOU SUBMIT: Please **check** that you have included all of the following key evidences:
- ☑ 1. PLO Assessed **(Q1.1, Q2.1)**
- ☑ 2. Definition of the PLO(s) **(Q2.1.1)**
- ☑ 3. Rubrics and Explicit Program (not class) Standards of Performance/Expectations **(Q2.3)**
- ☑ 4. Direct Measures **(Q3.3.2)**
- ☑ 5. Data Table(s) **(Q4.1)**
- ☑ 6. Curriculum Map **(Q21.1)**
- ☑ 7. The Most Updated Assessment Plan **(Q20.2)**

Please do **NOT** include student names and other confidential information. This is going to be a **PUBLIC** document.

Save When Completed!
(**Remember**: **Save your progress. There is NO "submit" button. After July 1, 2019, the saved report will be considered the final submission.**)

DEADLINE: July 1, 2019.

Thank you and have a great summer!

ver. 03.**11**.19

From Q2.3

QUANTITATIVE LITERACY VALUE RUBRIC

for more information, please contact value@aacu.org

The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disciplines, and even courses. The utility of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations such that evidence of learning can by shared nationally through a common dialog and understanding of student success.

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Quantitative Literacy Across the Disciplines

Current trends in general education reform demonstrate that faculty are recognizing the steadily growing importance of Quantitative Literacy (QL) in an increasingly quantitative and data-dense world. AAC&U's recent survey showed that concerns about QL skills are shared by employers, who recognize that many of today's students will need a wide range of high level quantitative skills to complete their work responsibilities. Virtually all of today's students, regardless of career choice, will need basic QL skills such as the ability to draw information from charts, graphs, and geometric figures, and the ability to accurately complete straightforward estimations and calculations.

Preliminary efforts to find student work products which demonstrate QL skills proved a challenge in this rubric creation process. It's possible to find pages of mathematical problems, but what those problem sets don't demonstrate is whether the student was able to think about and understand the meaning of her work. It's possible to find research papers that include quantitative information, but those papers often don't provide evidence that allows the evaluator to see how much of the thinking was done by the original source (often carefully cited in the paper) and how much was done by the student herself, or whether conclusions drawn from analysis of the source material are even accurate.

Given widespread agreement about the importance of QL, it becomes incumbent on faculty to develop new kinds of assignments which give students substantive, contextualized experience in using such skills as analyzing quantitative information, representing quantitative information in appropriate forms, completing calculations to answer meaningful questions, making judgments based on quantitative data and communicating the results of that work for various purposes and audiences. As students gain experience with those skills, faculty must develop assignments that require students to create work products which reveal their thought processes and demonstrate the range of their QL skills.

This rubric provides for faculty a definition for QL and a rubric describing four levels of QL achievement which might be observed in work products within work samples or collections of work. Members of AAC&U's rubric development team for QL hope that these materials will aid in the assessment of QL – but, equally important, we hope that they will help institutions and individuals in the effort to more thoroughly embed QL across the curriculum of colleges and universities.

Framing Language

This rubric has been designed for the evaluation of work that addresses quantitative literacy (QL) in a substantive way. QL is not just computation, not just the citing of someone else's data. QL is a habit of mind, a way of thinking about the world that relies on data and on the mathematical analysis of data to make connections and draw conclusions. Teaching QL requires us to design assignments that address authentic, data-based problems. Such assignments may call for the traditional written paper, but we can imagine other alternatives: a video of a PowerPoint presentation, perhaps, or a well designed series of web pages. In any case, a successful demonstration of QL will place the mathematical work in the context of a full and robust discussion of the underlying issues addressed by the assignment.

Finally, QL skills can be applied to a wide array of problems of varying difficulty, confounding the use of this rubric. For example, the same student might demonstrate high levels of QL achievement when working on a simplistic problem and low levels of QL achievement when working on a very complex problem. Thus, to accurately assess a students QL achievement it may be necessary to measure QL achievement within the context of problem complexity, much as is done in diving competitions where two scores are given, one for the difficulty of the dive, and the other for the skill in accomplishing the dive. In this context, that would mean giving one score for the complexity of the problem and another score for the QL achievement in solving the problem.

QUANTITATIVE LITERACY VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition

Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate).

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	**Milestones** 3	2	**Benchmark** 1
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explains the trend data shown in a graph and makes reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explains the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explains trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempts to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized)*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)

From Q3.3.2

MATH 107B Quantitative Literacy Questions
Spring 2019

1. Four packaging machines can pack 500 lbs of merchandise in one day.

   (a) Use a ratio table to answer the following question. When creating a new entry in the ratio table please justify why that entry is valid in the context of packaging machines and pounds of merchandise.

   How many pounds of merchandise could 6 machines pack in one day?

   (b) What assumptions about the individual machines is being made when you do the above calculations?

   (c) Why is that assumption a reasonable assumption to make?

   (d) If people instead of machines were packing the merchandise, do you think the assumption you stated above would still be valid? Why or why not?

2. Jayden and his friends love to play with marbles, and they buy them by the pound. Jayden and his friends have bought the 2 pound bag and the 5 pound bag, but they haven't yet bought the 8 pound bag, so they are trying to figure out how many marbles will come in an 8 pound bag. Each time they purchase a bag they count how many marbles are in the bag, so they have the following data. How many marbles do you think will be in an 8 pound bag? Please carefully justify your response.

Pounds	# of marbles
2	175
2	180
2	182
5	439
5	444
5	441
5	506

3. Use a tape diagram to solve the following problem. Be sure you make it clear how the tape diagram was used to solve the problem, and not just to verify an answer you found in another way.

   The ratio of Jack's money to Jenny's money is 4 to 5. After Jenny spends half of her money she now has \$15 less than Jack. How much money does Jack have?

4. Max likes green when blue and yellow are mixed in a ratio of 2 to 3. Macy likes green when blue and yellow are mixed in a ratio of 3 to 5.

   (a) Determine how much blue paint Max will need if he uses 1 cup of yellow.

   (b) Using a similar idea to above, explain what the fraction $\frac{3}{5}$ represents in Macy's green paint. (Be sure you are explaining what the fraction three fifths represents and not the ratio 3 to 5.)

Figure 1
Liberal Studies Annual Assessment
Spring 2019
Quantitative Literacy
Math 107B

N = 19

	N	# of 4s	# of 3s	# of 2s	# of 1s
Interpretation	19	13	3	3	0
Representation	19	14	3	0	2
Calculation	18	14	4	0	0
Application/Analysis	12	3	5	3	1
Assumptions	18	8	3	6	1
Communication	18	13	4	1	0

Figure 2
Liberal Studies Annual Assessment
Spring 2019
Quantitative Literacy
Math 107B

	% of 4s	% of 3s	% of 2s	% of 1s
Interpretation	68.4	15.8	15.8	0.0
Representation	73.7	15.8	0.0	10.5
Calculation	77.8	22.2	0.0	0.0
Application/Analysis	25.0	41.7	25.0	8.3
Assumptions	44.4	16.7	33.3	5.6
Communication	72.2	22.2	5.6	0.0

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Aligned Liberal Studies and Sacramento State
Student Learning Objectives

Sacramento State	**Liberal Studies**	**Where LBST SLOs are Measured**
1. Competence in the Discipline	1. Synthesize fundamentals of interdisciplinary approaches as the basis for competence for primary school teaching and learning.	Measured throughout the interdisciplinary program in the areas of Language and Literature, Mathematics, Natural Science, Social Science, Visual and Performing Arts, Physical and Health Education, Human Development, Integrated Studies, and Field Experience. In addition, Passage of the California Subject Examination for Teachers (CSET) is required of all Liberal Studies majors before acceptance into a teacher credential program.
2. Knowledge of Human Culture and the Physical and Natural World	2. Demonstrate knowledge of human cultures and the physical and natural world required for primary school educators.	Measured in coursework that focus on Social Science, Mathematics, Natural Science, Physical and Health Education, and Credential Prerequisites.
3. Intellectual and Practical Skills: 3.1 Critical Thinking 3.2 Information Literacy 3.3 Written Communication 3.4 Oral Communication	3. Demonstrate intellectual and practical skills: 3.1 Critical Thinking 3.2 Information Literacy 3.3 Written Communication 3.4 Oral Communication	Measured in specific required courses taken exclusively by all Liberal Studies majors: Social Science (LBST 110) Social Science (LBST 110) Language and Literacy (ENGL 16, 107A, or 107B) Social Science (LBST 110)

3.5 Quantitative Literacy 3.6 Inquiry and Analysis	3.5 Quantitative Literacy 3.6 Inquiry and Analysis	Mathematics (Math 107A, 107B) Natural Science (BIO 7, CHEM 107, or PHYS 107)
4. Personal and Social Responsibility 4.1 Civic knowledge and engagement 4.2 Intercultural knowledge and competence	4. Apply personal and social responsibility 4.1 Civic knowledge and engagement 4.2 Intercultural knowledge and competence	Measured in specific required courses taken exclusively by all Liberal Studies majors: Field Experience (EDUC 124A/B, 125A/B, or 127A/B) Social Science (LBST110) or Credential Prerequisites (EDUC 170)
5. Integrated Studies	5. Synthesize integration of studies	Passage of the California Subject Examination for Teachers (CSET) required of all Liberal Studies majors before acceptance into a teacher credential program.

Aligned Liberal Studies and Sacramento State
Student Learning Objectives

Sacramento State	**Liberal Studies**	**Where LBST SLOs are Measured**
1. Competence in the Discipline	1. Synthesize fundamentals of interdisciplinary approaches as the basis for competence for primary school teaching and learning.	Measured throughout the interdisciplinary program in the areas of Language and Literature, Mathematics, Natural Science, Social Science, Visual and Performing Arts, Physical and Health Education, Human Development, Integrated Studies, and Field Experience. In addition, Passage of the California Subject Examination for Teachers (CSET) is required of all Liberal Studies majors before acceptance into a teacher credential program.
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3. Intellectual and Practical Skills: 3.1 Critical Thinking 3.2 Information Literacy 3.3 Written Communication 3.4 Oral Communication	3. Demonstrate intellectual and practical skills: 3.1 Critical Thinking 3.2 Information Literacy 3.3 Written Communication 3.4 Oral Communication	Measured in specific required courses taken exclusively by all Liberal Studies majors: Social Science (LBST 110) Social Science (LBST 110) Language and Literacy (ENGL 16, 107A, or 107B) Social Science (LBST 110)

3.5 Quantitative Literacy 3.6 Inquiry and Analysis	3.5 Quantitative Literacy 3.6 Inquiry and Analysis	Mathematics (Math 107A, 107B) Natural Science (BIO 7, CHEM 107, or PHYS 107)
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5. Integrated Studies	5. Synthesize integration of studies	Passage of the California Subject Examination for Teachers (CSET) required of all Liberal Studies majors before acceptance into a teacher credential program.

LIBERAL STUDIES

FOUR♦YEAR PLAN

Minimum total units required for BA Degree: 120 ▪ GE requirements are met within the major
▪ Additional course may be needed in Math prior to completing Math 17 (pass ALEKS or must take Math 10 prereq)
This form is designed to be used with your Major advisors - modifications may be necessary to meet the unique needs of each student. Seek assistance each semester to stay on track and graduate!

YEAR 1	Sem. 1	ENGL 5 or 5M or 10	CHDV 35	CHDV 35F	BIO 7	EDUC 21		15 UNITS
	Sem. 2	Critical Thinking	COMS 5	ENGL 16	MATH 17	Elective (or Engl 11 if stretch chosen)		15 UNITS
YEAR 2	Sem. 3	MATH 107A	THEA 118	HIST 17A+	ENGL 20*/20M*	GEOL 8	GEOL 8T	16 UNITS
	Sem. 4	MATH 107B	GOVT 1	HIST 187 or ECON 1A	EDUC 124A/125A/127A	EDUC 124B/125B/127B	HIST 50	15 UNITS
YEAR 3	Sem. 5	LBST 110	MUSC 101	ENGL 116A**	HIST 132	Concentration Course		15 UNITS
	Sem. 6	ART 133	CHEM 106	ENGL 116B**	GEOG 100	Concentration Course		15 UNITS
YEAR 4	Sem. 7	KINS 172	PHYS 107	HLSC 136	Concentration Course	Elective (or For Lang if necessary)		15 UNITS
	Sem. 8	Integrative Study	Writing	Elective (Educ	Elective (Educ	Elective (or FL if necessary)		14 UNITS

KEY:

- Major requirements
- GE/graduation requirements
- Electives

UD	Upper Division
+	Race & Ethnicity
*	Take WPJ during/following Engl 20
**	Complete WPJ (or ENGL 109W/M) before enrolling
FL	If requirement was not met in high school or through testing, substitute two semesters of Foreign Language for electives
^	Sac State credential pre/co-requisite (should be taken for elective credit if entering Sac State credential program)
( )	Courses in parentheses are suggested, not required.

NOTES:

- Grades of C- or better in ALL courses.
- Students seeking the minor in math will complete alternate core math requirements (17-30, 107A-31, 107B-35)
- There are several opportunities for overlap within the major (Writing Intensive, Race & Ethnicity, Critical Thinking, concentration, Integrative Study). See your advisor for options.

TOTAL = 120 UNITS

SACRAMENTO STATE