

Annual Assessment Report AY20-21

REPORT DUE DATE: Nov 1, 2021

I. LOGISTICS

1. Please indicate the name and email of the program contact person to whom feedback should be sent (usually Chair, Program Director, or Faculty Assessment Coordinator).

Professor Ben Levy

Co-Chair

bjlevy3@usfca.edu

Professor Violet Cheung

Faculty Assessment Committee Chair

vcheung@usfca.edu

2. Please indicate if you are submitting report for (a) a Major, (b) a Minor, (c) an aggregate report for a Major & Minor (in which case, each should be explained in a separate paragraph as in this template), (d) a Graduate or (e) a Certificate Program

Aggregate report for Psychology Major and Minor

3. Please note that a Curricular Map should accompany every assessment report. Has there been any revisions to the Curricular Map since October 2019?

No

II. MISSION STATEMENT & PROGRAM LEARNING OUTCOMES

1. Were any changes made to the program mission statement since the last assessment cycle in October 2019? Kindly state “Yes” or “No.” Please provide the current mission statement below. If you are

submitting an aggregate report, please provide the current mission statements of both the major and the minor program

No.

Mission Statement (Major/Graduate/Certificate):

The Bachelor of Arts in Psychology provides a foundation for traditional and nontraditional students who wish to become psychologists. It also prepares students to become lifelong learners by delivering analytical, quantitative, and problem-solving skills that lead to self-awareness, critical social/cultural engagement as well as employment in a variety of work settings.

Mission Statement (Minor):

The Minor in Psychology provides a foundation for traditional and nontraditional students in psychology. It also prepares students to become lifelong learners by delivering analytical, quantitative, and problem-solving skills that lead to self-awareness, critical social/cultural engagement as well as employment in a variety of work settings.

2. **Were any changes made to the program learning outcomes (PLOs) since the last assessment cycle in October 2019? Kindly state “Yes” or “No.” Please provide the current PLOs below. If you are submitting an aggregate report, please provide the current PLOs for both the major and the minor programs.**

Note: Major revisions in the program learning outcomes need to go through the College Curriculum Committee (contact: Professor Joshua Gamson, gamson@usfca.edu). Minor editorial changes are not required to go through the College Curriculum Committee.

No.

PLOs (Major/Graduate/Certificate):

1. Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology
2. Respect and use critical thinking, skeptical inquiry and a scientific approach to understanding human behavior and psychological processes
3. Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation
4. Apply psychological theory, methodology and findings to develop a greater understanding of the whole person, as an individual and as a member of a large community, society, and culture
5. Be able to communicate psychological information effectively in a variety of formats

6. Recognize, understand, and respect the complexity of sociocultural and international diversity

PLOs (Minor):

1. Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology
2. Respect and use critical thinking, skeptical inquiry and a scientific approach to understanding human behavior and psychological processes
3. Apply psychological theory, methodology and findings to develop a greater understanding of the whole person, as an individual and as a member of a large community, society, and culture

3. State the particular Program Learning Outcome(s) you assessed for the academic year 2019-2020.

PLO(s) being assessed (Major/Graduate/Certificate):

1. Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology
2. Respect and use critical thinking, skeptical inquiry and a scientific approach to understanding human behavior and psychological processes

PLO(s) being assessed (Minor):

1. Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology
2. Respect and use critical thinking, skeptical inquiry and a scientific approach to understanding human behavior and psychological processes

Assessment Schedule between APRs:

Our last APR was 2017-2018. In 2018-2019, we assessed PLO #6. In 2019-2020, we filed an alternative assessment report. It did not assess PLOs but assessed faculty responses to transitioning to remote instruction. As noted above, the current report assesses PLOs #1 & #2.

III.METHODOLOGY

Describe the methodology that you used to assess the PLO(s).

For example, “the department used questions that were inputted in the final examination pertaining directly to the <said PLO>. An independent group of faculty (not teaching the course) then evaluated the responses to the questions and gave the students a grade for responses to those questions.”

Important Note – WSCUC advises us to use “direct methods” which relate to a direct evaluation of a student work product. “Indirect methods” like exit interviews or student surveys can be used only as additional complements to a direct method.

For any program with fewer than 10 students: If you currently have fewer than 10 students in your program (rendering your statistical analysis biased due to too few data points), it is fine to describe a multi-year data collection strategy here. It would be important to remember that every 3 years, we would expect you to have enough data to conduct a meaningful analysis.

Important: *Please attach, at the end of this report, a copy of the rubric used for assessment.*

Methodology used (Major/Graduate/Certificate):

The psychology department established an assessment committee in the academic year of 2019-2020 and extended it to Fall 2021 in light of the pandemic. Four committee members (Dr. Violet Cheung, Dr. Benjamin Levy, Dr. Edward Munnich, and Dr. Indre Viskontas), with the help of three additional faculty members (Dr. Adam Bristol, Dr. Davina Chan, and Dr. Marisa Knight), contributed to the effort of test development and administration.

We assessed Biological Psychology (PSYC 270), the only foundation course (out of the five required for the major) that has not undergone assessment.

The test development process started by asking experienced instructors of the course to provide past multiple choice exam questions with sound psychometric properties. The resulting large item pool comprehensively sampled the content space of the course. The items were then evaluated based on how well they measured the two program learning outcomes PLO#1 and PLO#2. Preferences were given to items with high discriminant validity (those clearly mapped onto one outcome instead of both outcomes).

The next level of item selection was conducted by considering the overall objective of the assessment and the eventual scoring of the items. The committee balanced the needs between presenting evidence on students’ mastery and offering diagnostic value for the teaching and learning process. As a result, the items’ difficulty levels were one of the considerations. For example, no obvious wrong answers were provided among the four choices to safeguard the items’ validity and utility. Superfluous choices would conflate students’ common sense with

their mastery of course-specific knowledge. They also raise the chance level performance above 25% (i.e., 1 out of 4 choices) yielding artificially inflated scores. The final set of items was sent to additional course instructors as well as two senior students for further feedback, and revised for clarity.

This test development process resulted in an instrument with 10 multiple choice questions that assessed PLO #1 (items 1, 2, 4, 5, 7) and PLO #2 (items 3, 6, 8, 9, 10).

The committee's plan to administer the test in classes in Fall 2020 was disrupted by the pandemic that sent classes online. With all four sections of Biological Psychology still online in Spring 2021, the instructors agreed to a new plan to administer the test in synchronous sessions during the last two weeks of the semester. The test started with a set of instructions and two questions regarding students' academic programs. The instructions assured students that their performance on the test would not affect their course grades. Students should do their best and work independently without consulting other sources. This test administration plan was proven unrealistic in a pandemic environment. One instructor had to administer the test asynchronously to their two sections. The cited reasons included student anxiety and difficulty in incorporating an additional test to the existing course work. The test was administered to all four sections of Biological Psychology offered in Spring 2021. Out of a total of 105 students enrolled in the four sections, 91 (86.7%) responded to the test and 85 (81%) completed the test. There were 68 psychology majors, 4 psychology minors and 13 in other academic programs.

The assessment rubric was set by considering the course level and its intended goal in the psychology curriculum. Biological Psychology is one of our five foundation courses for psychology majors and one of the electives for psychology minors. Our curricular map shows that this course aims to "develop" students towards PLOs #1 and #2 (whereas lower and higher level courses have the respective aims to "introduce" and "master" the PLOs). Our rubric classified student performance into the categories of 5 correct items=complete mastery of the outcome, 3-4 correct items=mastered most of the outcome, 2 correct items=mastered some parts of the outcome, 0-1 correct items=did not master outcome at level intended.

Methodology used (Minor):

Same as the methodology used for the major.

IV. RESULTS & MAJOR FINDINGS

What are the major takeaways from your assessment exercise?

This section is for you to highlight the results of the exercise. Pertinent information here would include:

a. how well students mastered the outcome at the level they were intended to,

PSYC 270 is a foundational course for psychology majors, and optional for psychology minors.

The overall findings show strong evidence of mastery at the intended level, which was defined as mastery of at least *some parts* (2 out of 5 items correct) of the outcome to

complete mastery (5 out of 5 items correct) of the outcome. In this case, for both PLO#1 and PLO#2, 100% of both majors and minors demonstrated mastery at the intended level. Looking more closely at the data, the distribution of responses skewed slightly lower for PLO#2 than for PLO#1 (e.g., 13.2% showed complete mastery of PLO#2 vs. 38.2% complete mastery for PLO#1 among psychology majors). This pattern was expected given that critical thinking, skeptical inquiry and a scientific approach are developed through later courses in the major. That said, we were very gratified to see 100% of majors and minors demonstrating mastery at the intended level for PLO#2 at this early stage in the major/minor.

b. any trends noticed over the past few assessment cycles, and

When comparing current PLO #1 results to our 2017-2018 assessments of this same PLO with students in General Psychology (a prerequisite for Biological Psychology), psychology majors and minors appear to show ongoing development of major concepts, theoretical perspectives, empirical findings, and historical trends in psychology, as they move through the foundational sequence of Psychology.

c. the levels at which students mastered the outcome based on the rubric used.

To address this, among many other options, one option is to use a table showing the distribution.

Results (Major):

PLO #1 – Mastery Level Percentage - PSYC 270 - Psych Majors (N=68)

Level	% Total Sample
Complete Mastery	38.2%
Mastered Most Parts	52.9%
Mastered Some Parts	5.9%
Did not Master at Level Intended	2.9%

*5 correct items=complete mastery of the outcome, 3-4 correct items=mastered most of the outcome, 2 correct items=mastered some parts of the outcome, 0-1 correct items=did not master outcome at level intended.

PLO #2 – Mastery Level Percentage - PSYC 270 - Psych Majors (N=68)

Level	% Total Sample
Complete Mastery	13.2%
Mastered Most Parts	57.4%
Mastered Some Parts	25.0%
Did not Master at Level Intended	4.4%

*5 correct items=complete mastery of the outcome, 3-4 correct items=mastered most of the outcome, 2 correct items=mastered some parts of the outcome, 0-1 correct items=did not master outcome at level intended.

Results (Minor):

PLO #1 – Mastery Level Percentage - PSYC 270 - Psych Minors (N=4)

Level	% Total Sample
Complete Mastery	50%
Mastered Most Parts	50%
Mastered Some Parts	0%
Did not Master at Level Intended	0%

*5 correct items=complete mastery of the outcome, 3-4 correct items=mastered most of the outcome, 2 correct items=mastered some parts of the outcome, 0-1 correct items=did not master outcome at level intended.

PLO #2 – Mastery Level Percentage - PSYC 270 - Psych Minors (N=4)

Level	% Total Sample
Complete Mastery	25%
Mastered Most Parts	50%
Mastered Some Parts	25.0%
Did not Master at Level Intended	0%

*5 correct items=complete mastery of the outcome, 3-4 correct items=mastered most of the outcome, 2 correct items=mastered some parts of the outcome, 0-1 correct items=did not master outcome at level intended.

V. CLOSING THE LOOP

Description of how the results were shared with faculty and how your department/program responded to the results. This is where you should lay out any plans for future improvement or assessment of your program indicated by the results.

We discussed the results of this assessment at a department meeting on September 16, 2021. The overall reception was positive with the focus being on the fact that the majority of our students are achieving mastery. There was some discussion of the relatively lower scores on PLO #2 as compared to PLO #1, but there was general agreement that this PLO assesses a higher-order skill (critical thinking) and this assessment occurred in a lower-division, introductory course. Based on that it is encouraging that so many of our students are already showing mastery, but we also agreed that it would be good to assess this PLO again in an upper-division course after students had completed other courses in our major (e.g., Research Design).

During this meeting, a number of other interesting points were discussed. One observation was that this assessment occurred during a pandemic, in an entirely new online learning environment. This makes our strong results perhaps even more encouraging. It also spurred a discussion about how many of us have learned new instructional practices from teaching online, some of which can be translated back into in-person instruction in the future. There was also some discussion during the development of the test instrument, spurred by the instructors who regularly teach this course, about the variability across different sections of the class. We were encouraged to see high consistency in curriculum across the sections for the first half of the semester, but we also observed variation in the more "elective" sections of biopsych presented in the second half of the semester. Some instructors even rotate among a number of elective topics from semester to semester. There appear to be a range of topics covered, reflecting both individual instructors' research expertise as well as unique interests of that particular class cohort. This suggests that our students are also offered diverse perspectives and learning opportunities within our biopsych courses, but it may also be something to think about for future assessments.

Discussion of any significant feedback from your previous year's report and how your department/program responded to that feedback.

One issue that has been raised in feedback on prior assessments is that we have been aggregating across majors and minors, rather than reporting outcomes separately for these two groups. For this report we have responded to feedback by reporting the data separately for the two groups.

We had a limited number of minors here, but the patterns were similar across the two groups. In the future we will continue to try to track these groups separately.

One other issue that we have not yet addressed is that our assessments have tended to focus on direct measures of student learning. We are aware that we have done less to collect indirect data about student learning, so we are in the process of developing an assessment plan for AY 21-22 that will focus more on indirect assessment.

ADDITIONAL MATERIALS

(Any rubrics used for assessment, relevant tables, charts and figures could be included here)

Assessment Instrument

1. When a neuron is at rest, the difference in charge between the inside and outside of the cell is called the:
 - o Action potential (1)
 - o Threshold for excitation (2)
 - o Resting membrane potential (3)
 - o Concentration potential (4)

2. Immediately after an action potential, neurons are unable to fire for a period of time. This is referred to as:
 - o Selective permeability (1)
 - o The inhibition threshold (2)
 - o The absolute refractory period (3)
 - o The all-or-none law (4)

3. Which of the following experiments would be most informative in understanding the degree to which differences in genes influence generosity?
 - o Compare generosity levels between siblings raised in the same home (1)
 - o Compare generosity levels between unrelated children raised in different towns (2)
 - o Compare generosity levels between a child and his biological vs adoptive parents (3)
 - o None of the above would be informative (4)

4. The primary difference between an Excitatory Postsynaptic Potential (EPSP) and an Inhibitory Postsynaptic Potential (IPSP) is that:
 - o EPSPs make the neuron more likely to fire an action potential and IPSPs make it less likely that a neuron will fire (1)
 - o Only EPSPs decay over time and space (2)
 - o Only IPSPs are graded (3)
 - o EPSPs occur on the axon and IPSPs occur on the dendrites (4)

5. A drug that blocks or decreases the effect of a neurotransmitter is called a(n):

- Agonist (1)
- Antagonist (2)
- Stimulant (3)
- Depressant (4)

6. Due to the learned nature of tolerance, drug overdoses are most likely to occur:

- When a user takes the drug at the same time every day (1)
- When a user consistently takes the drug in the same environment (2)
- When a user regularly takes the drug around the same people (3)
- When a user takes the drug in a novel environment (4)

7. In comparison to cones, rods are:

- More concentrated in the periphery of the retina (1)
- More effective in dim light (2)
- More important in color vision (3)
- Both more concentrated in the periphery of the retina and more effective in dim light (4)

8. Antidepressant medications are often serotonin agonists. This fact provides support for:

- The neurotrophic hypothesis (1)
- The monoamine hypothesis (2)
- The circadian rhythm hypothesis (3)
- The glutamate hypothesis (4)

9. A patient who cannot form new long-term memories for things like the names of people she just met, whether she's already had dinner or what happened after her brain injury has:

- a working memory problem (1)
- retrograde amnesia (2)
- anterograde amnesia (3)
- Parkinson's disease (4)

10. Imagine you are a neurologist and a person walks into your room with partial paralysis on the left side. What is your first guess at a diagnosis?

- The person might have Parkinson's Disease due to loss of cells in the substantia nigra (1)
- It is likely that she/he has a tumor in the thalamus (2)
- There is damage to the left motor cortex (3)
- The person likely had a stroke that affected his/her right hemisphere (4)