

Assurance of Student Learning Reflection 2024-2025

<i>College: Ogden College of Science and Engineering</i>	<i>Department: Psychological Sciences</i>
<i>Program: Psychological Science major (non-extended 747 and extended 747E options)</i>	
<i>Program Coordinator: Andrew Mienaltowski, PhD</i>	
Is this an online program? ☐ Yes ☒ No	Please make sure the Program Learning Outcomes listed match those in CourseLeaf. Indicate verification here ☒ Yes, they match! (If they don't match, explain on this page under Evaluation)

Instructions: For the 2024-25 assessment, we are asking you to reflect on the last three-year cycle rather than collect data. It's important to take time to look over the results from the last assessment cycle and really focus on a data-informed direction going forward. In collaboration with your assessment team and program faculty, review each submitted template from 2021-2024 and consider the following for each Program Learning Outcome, add your narrative to the template, and submit the draft to your **ASL Rep** by **May 15, 2025**.

Program Student Learning Outcome 1

Program Student Learning Outcome	Develop a working knowledge of psychology's content domains.
Evaluation	The guidelines for majors offered by the American Psychological Association recommends that the core curriculum for Psychology majors include those domains which we assess as part of this learning outcome. Those domains are (1) developmental psychology, (2) experimental psychology (specifically cognition and learning), (3) biological psychology, and (4) individual differences and social processes. Each of these pillars of psychology is represented by core courses within our major [(1) PSYS 220 and PSYS 321; (2) PSYS 331 and PSYS 333; (3) PSYS 360 and PSYS 363; and (4) PSYS 350 and PSYS 440]. Each of these domains includes their own learning outcomes, also captured by course learning outcomes on CourseLeaf, which we objectively assess using items that are asked of students in their final year of graduation. The assessments for these four domains, with the exception of biopsychology, have been reviewed and updated over the past three years. We will continue to review these items, rotating each year from one domain to the next. Additionally, if the program is changed to add or remove courses from these domains, changes in the sub-outcomes will also take place and new objective assessments will be developed.
Measurement Instruments	For this learning outcome, we have one instrument containing questions with objectively correct answers across eight different courses. The instrument is implemented outside of these courses and is not attached to course grades. Students complete at least four of these courses, one in each domain, so their top score in each domain is used to determine if they have met the outcomes for that domain. We examine performance then in each of our domains. Over the past three years, we see some variability in performance in some of the domains, and this variability can be attributed to factors like: new prep for faculty, online versus in-person offering of courses, and students balancing learning expectations at a university after having experienced varied instruction in high school during the pandemic. In short, the assessment is useful, and data shared with the faculty can be used to reflect on pedagogy and to improve student retention of relevant knowledge and skills. Given that the assessment is a low-stakes assessment for our students and not directly connected to course grades/performance and rather serves as a measure of achievement, the instruments should not be affected by AI. Of course we will monitor student performance on the assessments for irregularities that suggest otherwise. Finally, the measurement instrument is constantly being evaluated with items being revised using a 4 to 5 year rotation.
Criteria & Targets	For this learning outcome, the criteria for success are reasonable. We track the proportion of students who simply meet expectations, those

	who exceed expectations, and those who fail to meet expectations. Moreover, for each domain, we evaluate the average accuracy in each of the eight courses of those taking the assessment each year. This allows us to observe year to year changes in percent accuracy by course. We feel that the criteria for success, given that students are only required to take one of the two courses in each domain, are satisfactory for the purposes of this assessment.
Results & Conclusion	Results: For this learning outcome, we consistently find that students do best in domains that are popular within the field (e.g., social and abnormal psychology) as well as in domains that are necessary for students to develop a well-rounded, working knowledge of psychology (biological psychology). Domains that include complex research designs or abstract principles (e.g., developmental psychology, cognition, and learning) are more challenging to master. These results are not at all surprising. However, reflecting on them now and certainly during last year's academic program review, we feel that the curriculum in this program offers WKU students a rigorous experience that is second to none in the state and which adheres to recommendations from the American Psychological Association. Conclusions: Over the past three years, we see consistency in student performance in some domains and variability in performance in others. The instrument seems to capture variability that may emerge from the evolution of student motivation post-Covid as well as modifications to how some of the courses are taught, especially if taught by new instructors. We recently underwent our academic program review, and the rigor of our major was recognized by the review committee. This rigor stems from our purposeful choice to engage our students in the science of psychology and to follow APA guidelines for structuring the core of the major. Given that we evaluate the assessment each year and made modifications as part of our 5-year plan as promised, the instrument remains relevant and offers us useful information each year about our students' progress.
<u>**IMPORTANT - Plans for Next Assessment Cycle:</u>	We currently only assess graduating seniors on this aspect of our program, but, in the future, we will also assess those students in our major who are taking capstone courses. Including their info in our assessment will be useful because these students, if not graduating, are likely to be temporally at the stage in the program where they have already completed the core requirements of the major. This will also allow us to look at whether performance changes when a student transitions into their graduation year. Proposed modifications will not require administrative review as they do not substantively modify the learning outcome or how conclusions are drawn about our assessment.

Program Student Learning Outcome 2	
Program Student Learning Outcome	Interpret, design, and conduct basic psychological research.
Evaluation	The learning outcome includes captures key knowledge and skills that students develop in our research methods and statistics course sequence. For this outcome, we have separate measurement instruments for each prong. Graduates in a psychology major, especially one that emphasizes empirical science in psychology like this major does, should be required to complete a rigorous pair of methods and statistics courses. Sub-outcomes are defined by the learning objectives for each course as specified on CourseLeaf. Each domain includes its own objective assessment items that we ask of students in their final year of graduation. The assessments for each domain have been reviewed and updated over the past three years. We will continue to review these items as part of the rotation of review for the domains also included in Learning Outcome 1. Additionally, if the program is changed to add or remove content from the courses being evaluated (PSYS 210, 211, and 313), changes in the sub-outcomes will also take place and new objective assessments will be developed.
Measurement Instruments	For this learning outcome, our measurement instruments are built into the instrument for learning outcome 1. The continuity in the application of objective assessment items is useful for scoring purposes and for evaluating gaps in student learning, if they are observed based on assessment performance. The instrument is implemented outside of these courses and is not attached to course grades. Students

	complete the research methods and statistics course sequence, and their score evaluating knowledge in each is used to assess this learning outcome. Over the past three years, we see some variability in performance, especially in statistics relative to research methods. That said, the items, though reviewed, have not been made less rigorous to make it appear that students are meeting the outcomes. Rather, performance variability tracks factors like: new prep for faculty and students balancing learning expectations at a university after having experienced varied instruction in high school during the pandemic. In short, the assessment is useful, and data shared with the faculty can be used to reflect on pedagogy and to improve student retention of relevant knowledge and skills. Given that the assessment is a low-stakes assessment for our students and not directly connected to course grades/performance and rather serves as a measure of achievement, the instruments should not be affected by AI. Of course we will monitor student performance on the assessments for irregularities that suggest otherwise. Note too that student activities in the assessed courses employ the use of relevant statistical software to support conceptual learning of the course content. The software employed varies by faculty instructor. Consequently, assessment items balance conceptual and mathematical applications of stats. Finally, the measurement instrument is constantly being evaluated with items being revised using a 4 to 5 year rotation.
Criteria & Targets	For this learning outcome, the criteria for success are reasonable. We track the proportion of students who simply meet expectations, those who exceed expectations, and those who fail to meet expectations. We feel that the criteria for success are satisfactory for the purposes of this assessment. There is no need to make the assessment more rigorous, as we observe variability in performance which suggests that students are not “at ceiling.”
Results & Conclusion	<u>Results:</u> For this learning outcome, students display individual variability in performance – most students are meeting the learning outcome but there are students who perform at an unsatisfactory level. This is not surprising given that many students do not anticipate the mathematical rigor linked to our methods and stats courses. Variability in student performance is useful because it allows for us to investigate whether faculty efforts to include high impact practices in the classroom support student success for this outcome. Unlike discipline-specific content courses, skills courses like methods and stats courses require students to engage in the application of the material learned. Some students struggle more than others with this. <u>Conclusions:</u> Over the past three years, we see consistency in student performance as well as variability. The instrument seems to capture variability that may emerge from the evolution of student motivation post-Covid as well as modifications to how some of the courses are taught, especially if taught by new instructors. Content linked to this outcome supports student learning in our upper-level concentration courses in the major. Put simply, ensuring that our students complete rigorous methods and stats courses will also maximize their learning in upper-level courses directly related to their future education and career goals.
<u>**IMPORTANT - Plans for Next Assessment Cycle:</u>	One thing to consider for our future assessment of this outcome is to continue to support advising’s efforts to place our majors MATH 183 Introductory Statistics in their first year at WKU. This will further support students grasping the stats concepts taught in our methods and stats sequence. Also, we currently only assess graduating seniors on this aspect of our program, but, in the future, we will also assess those students in our major who are taking capstone courses. Including their info in our assessment will be useful because these students, if not graduating, are likely to be temporally at the stage in the program where they have already completed the core requirements of the major. This will also allow us to look at whether performance changes when a student transitions into their graduation year. Proposed modifications will not require administrative review as they do not substantively modify the learning outcome or how conclusions are drawn about our assessment.

Program Student Learning Outcome 3

Program Student Learning Outcome	Apply ethical standards to evaluate psychological science and practice.
Evaluation	The learning outcome is one that is recommended for all students majoring in psychology by the American Psychological Association. Generally speaking, students accomplish this outcome via engagement inside and/or outside the classroom. Moreover, discussion of ethics occurs all throughout our curriculum. The measurement we use for this outcome is objective and involves students completing ethics training using the discipline/industry standard in the US. Student engagement via this outcome benefits the students professionally after graduation, so modifications to this particular outcome and its corresponding measurement instrument will not benefit the students.
Measurement Instruments	To meet this learning outcome, students complete an ethics training program in relation to their research methods course and their independent study experiences. This experience is completed early on in the students' time at WKU and reinforced in future years as the students are engaged in lab or applied research projects. The ethics training is offered by an internationally recognized agency (CITI program) free of charge to students, is utilized by WKU's research compliance office as an indicator of ethics training, and is supported by course content through all four years of the psychological science degree program.
Criteria & Targets	For this learning outcome, the criteria for success are reasonable. We track student success via student engagement in our PSYS 210 research methods course and via student engagement in PSYS 290/490 independent study experiences. We have a fairly ambitious goal for this particular outcome, and have generally found that roughly 85-90% of our students meet the objective. We feel that the criteria for success are satisfactory for the purposes of this assessment. There is no need to make the assessment more rigorous as the expected behaviors to satisfy this outcome are consistent with the discipline standards for documenting ethics training.
Results & Conclusion	Results: The vast majority of our majors complete PSYS 210 and/or are engaged in research as part of their undergraduate experiences. Student engagement in research and creative activity is one of the major strengths of the Department of Psychological Sciences and is one of the factors that contributes most to our students' employment success after graduation. Observing a 80-90% success rate for this outcome requires that faculty invest a significant amount of time (a) discussing research ethics when covering discipline specific course content, and (b) creating research opportunities for students. Conclusions: The current outcome is consistent with the expectations in our discipline for the experiences that students must have to be prepared to evaluate research ethics. Our measurement instrument assesses engagement in the discipline standard training protocol. No additional modifications are needed at this time.
<u>**IMPORTANT - Plans for Next Assessment Cycle:</u>	Ultimately, we are proposing modified or added approaches to assessing three of our five learning outcomes. We do not plan on making modifications to this outcome or its assessment at this time.

Program Student Learning Outcome 4	
Program Student Learning Outcome	Applies learning outcomes of the methods and statistics courses in the lab (for students completing independent study).
Evaluation	Given that the department invests a significant amount of time in facilitating lab-based and applied research experiences for undergraduate majors, this learning outcome is relevant. Tracking this outcome allows us to gauge the variability in student experiences from lab to lab to ensure that faculty are appropriately engaging students in research experiences that offer professional development that will benefit the

	students after graduation.
Measurement Instruments	For this outcome, we track the manner with which faculty engage students in research, from tracking exposure to steps in the scientific method, technical training in stimulus presentation and data analysis, and professional writing and speaking. The measurement directly measures student engagement by asking students to check off specific activities that they are engaged in in the lab instead of asking students about their “perception of engagement.”
Criteria & Targets	For this learning outcome, the criteria for success are reasonable. We track student success by asking all students who have taken part in an independent study in a given year to describe the kinds of activities they have engaged in during that experience. The types of activities were defined by the faculty and are updated when needed. We require a reasonable number of activities as the criteria to satisfy this learning outcome and often observe that students far surpass what is expected. It is not necessary to change the criteria for this measurement instrument as faculty already have rigorous standards for student research engagement.
Results & Conclusion	Results: Over the past three years, all of our students who have been active in an independent study has satisfied this learning outcome. The data that we collect allow for us to evaluate variability in engagement, which is vital for discussions we have around our investment of time and department resources on student research engagement. Conclusions: The current outcome is consistent with our expectations; faculty invest time in student research engagement and professional development that facilitates student education and career placement after earning a bachelor’s degree.
<u>**IMPORTANT - Plans for Next Assessment Cycle:</u>	Ultimately, we are proposing modified or added approaches to assessing three of our five learning outcomes. We do not plan on making modifications to this outcome or its assessment at this time.

Program Student Learning Outcome 5	
Program Student Learning Outcome	Integrate knowledge gained in complementary disciplines of psychology (for students in 747E only).
Evaluation	A fraction of our majors are matriculated within our extended major program which asks students to select two of our thematic concentrations. In these concentrations, student complete upper level elective courses that prepare them for future education and career opportunities. This learning outcome assesses the students’ ability to draw connections between the two concentrations. We have been assessing this outcome using a rubric that tracks how students form connections between disciplines and transfer knowledge across disciplines.
Measurement Instruments	The measurement instrument asks students: (1) “ Earlier you indicated that you were completing the extended Psychological Science major with two concentrations. Please indicate the two concentrations for which you are completing degree requirements. Then imagine that you are asked to speak with an incoming student who is considering your same degree path. Please describe at least two ways that theories or research findings in one concentration impacts or interacts with those in the other concentration.” or (2) “ Earlier you indicated that you were completing the quantitative concentration in the Psychological Science major. Then imagine that you are asked to speak with an incoming student who is considering your same degree path. Please describe at least two ways that the perspectives, skills, or theories presented in your quantitative concentration courses complement the foundation courses that you completed in cognition/learning, development, social psychology, abnormal psychology, or biobehavioral psychology.” We then would evaluate the students’ responses using a rubric that assessed the mechanics (depth) of their response, their knowledge on transferring knowledge across disciplines, and their understanding of

	how the disciplines were connected. This assessment is direct. The students' responses to the aforementioned items were usually short, making it difficult to extract meaningful insights from the data. Last year the program underwent the university's academic program review. Given the feedback that we received, the faculty decided to submit appropriate paperwork through the curricular process to (a) discontinue the selection of two thematic concentrations to satisfy the extended major requirements, (b) required extended major students to select one thematic concentration and then complete 12 additional upper-level elective hours in any of the other concentrations, and (c) change this SLO to be more focused on assessing career-related professional development. Our program revisions were approved, closing the loop on our academic program review. We will describe the resulting recently approved SLO changes in the "Plans for the Next Assessment Cycle."
Criteria & Targets	The criteria for success for this learning outcome were reasonable. Our most engaged students did offer responses that satisfied the student learning outcome, but less engaged students simply worked their way quickly through this component of the assessment. Our assessment of this outcome will be discontinued and instead we will be assessing the newly proposed and approved SLO 5.
Results & Conclusion	<u>Results:</u> Students appear to be appropriately drawing connections between disciplines captured by our courses in multiple concentrations though the students' responses are brief. <u>Conclusions:</u> Our assessment of the assurance of student learning outcomes occurs independent of the content of courses in that we are not drawing data from students course grades. Instead, we consistently use direct, objective assessments administered outside of the classroom setting so as to not bias observed student behavior toward the demand to perform introduced by course grades. Ultimately, this means that student completion of the assessment reflects their desire to work through the assessment as efficiently as they can. Open ended responses to reflection oriented questions, even with the emergence of AI, did not consistently elicit reflections from our graduates. This isn't surprising, but the inconclusiveness of data gathered under these circumstances create an opportunity for us to develop a new and timely SLO. We did just this, and the future SLO 5 is described below.
<u>**IMPORTANT - Plans for Next Assessment Cycle:</u>	One of the short-term goals that the department set within last year's academic program review after reflecting on program data and five years of ASL data was to "Address alumni concerns about considering short and long-term employment goals while in the program." To accomplish this goal, we made a few modifications to our academic program: (1) Change the Integrative Science of Psychology Requirement in our major to a Capstone requirement, (2) Include career-related discussions and professional development in the courses reflected by the renamed Capstone category, and (3) Propose a new SLO to replace the old SLO 5. The new SLO 5 is: "Reflect on application of experience in major to future career or educational training" The measurement plan will be to ask students to complete open-ended instrument in which they reflect on connections between training in major and future directions in the profession. Responses will be scored with rubric across four levels (unsatisfactory to exceptional). We will ask our graduating seniors to respond to these items as well as our majors in capstone courses (i.e., PSYS 481 and PSYS 499). These items are included with the objective items used to assess SLOs 1 and 2. The actual assessment items we will use to draw out relevant information from students will be: "In this section, we are asking you to take a moment to thoughtfully reflect on your experiences while completing your major. In the first two items, we will ask you about your future directions. In the last item, we will ask you for input or suggestions on ways to improve upon your experiences as the major evolves. It is important that you take a moment to think about your response, as we are genuinely interested in your appraisal of your experience in each of your responses.

	1. After you graduate from WKU, please describe what your next step is with respect to your career or your future education goals and why you are drawn to that direction. 2. Over the course of your major, you have had numerous opportunities to develop a foundation in psychological science through your courses, through meetings with your academic advisor, and possibly through extracurricular activities or lab research experiences. Please describe how these opportunities have informed your decision on what to pursue next, whether it's graduate school, employment, or another path? Please provide examples of specific concepts, skills, conversations, or experiences in the program that have influenced your possible future direction." 3. If you were to consider investing in a new or different experience or course for students in the major, what would that be and how would that investment improve the student experience in the major or offer another alternative for students that is not currently being offered? [Note for curricular review: This is not part of SLO #5]" The rubric evaluates students on their ability to articulate a clear future direction and connect it to their experiences in the program. For the program to meet expectations, 50% of students will be at least proficient in each of the two rubric categories. To exceed expectations, 70% of the students will be proficient in each of the two rubric categories. To reach exceptional, 90% of students will be proficient in each of the two rubric categories. As we gather data, we will evaluate the language used in the items and make modifications as necessary to encourage students to provide thoughtful responses. We are not worried students will rely on AI, and we hope that students will describe specific moments that we can reflect on as a program to facilitate growth in students' purposeful connections between their WKU experience and post-WKU career.
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