

## Part 1. General Information

Program(s) Discussed:	Psychology
Current Semester:	Spring, 2020
Date of Assessment Meeting(s):	The majority of monthly departmental meetings
Participants in Assessment Meeting(s):	(see below)

**The entire department participated in assessment meetings, including:**

Anthony Tarescavage, Ph.D. (Coordinator, Assistant Professor)  
John Yost, Ph.D. (Department Chair, Associate Professor)  
Sheri Young, Ph.D. (Associate Professor)  
Angela Jones, Ph.D. (Associate Professor)  
Denise Ben-Porath, Ph.D. (Full Professor)  
Tracy Masterson, Ph.D. (Associate Professor)  
Helen Murphy, Ph.D. (Full Professor)  
Elizabeth Swenson, Ph.D., J.D. (Full Professor)  
Abdul Imam, Ph.D. (Associate Professor)  
Thomas Frazier, Ph.D. (Full Professor)

All Annual Assessment Reports are available to the appropriate Associate Dean, Dean, and the Provost, as well as to other administrators for institutional effectiveness and accreditation purposes. Please indicate the degree to which your program would like this information more widely shared.

### On-Campus Users

- Freely available  
 Available upon request  
 Unavailable

### Off-Campus Users

- Freely available  
 Available upon request  
 Unavailable

## Part 2. Assessment Process

### 2A. Learning Goals

*Prompt:* Paste your program learning goals here, then, address the following questions in a sentence or two: Did you gather data on all of your program's student learning goals? If not, which student learning goals did you measure in this assessment cycle?

The psychology department has the following learning goals (**bolded** were assessed this cycle):

- 1. A fundamental knowledge base in the core areas of psychological science;**
2. Critical thinking skills and their application;
3. Proficiency in the use of the language of psychological science in both written and verbal form;
4. Expertise in the methods of information gathering, organization, and synthesis as applied to psychological science;

5. **Mastery of the experimental method and statistical analysis as practiced by psychologists;**
6. **An understanding of the ethics and values of the discipline;**
7. **A readiness for graduate study or for transition into the workforce;**
- and
8. Recognition of how psychological science contributes to the understanding of human diversity.

## 2B. Measuring Learning

*Prompt:* In one or two paragraphs, describe your assessment process. What tools did you use to attempt to measure student learning? Where and how were they administered? Who scored them?

### **Goal 1) A fundamental knowledge base in the core areas of psychological science**

In order to graduate with a degree in Psychology, all seniors must “pass” the Major Field Test (MFT) in psychology. The MFT is a standardized, comprehensive exam that is divided broadly into four sections: 1) Learning & Cognition, language, Memory, and Thinking, 2) Perception, Sensory, Physiology, Comparative and Ethology, 3) Clinical, Abnormal, and Personality, and 4) Developmental and Social. The test is published by Educational Testing Services (ETS), the same company that published Advanced Placement (AP) exams, the Graduate Record Examination (GRE), and other widely-used achievement/aptitude tests. The exam is proctored by two faculty members and is sent ETS for scoring. We discuss testing results at department meetings and students are sent a letter (and e-mail) inviting them to meet with the Department Chair to discuss their results.

There are no set standards for a “passing” score on the MFT. However, our department requires that students achieve a total score a minimum of  $\frac{1}{2}$  standard deviations below the national mean to pass the exam. In educational testing, this is referred to as scoring in *at least* the “average” range of achievement in psychology relative to a nationally representative sample of psychology majors who took the MFT under the same standardized conditions. Although our minimum is a score in the average range, the typical psychology major from our department scored in the “high average” range (see Part 3 – Findings).

### **Goal 5) Mastery of the experimental method and statistical analysis as practiced by psychologists**

One of two courses that all students in the Psychology major must complete is PS 301/PS 301Lab (Experimental Design and Analysis). In Summer, 2017, the department (primarily those faculty teaching PS 301) created a 25-item multiple choice exam to assess student knowledge and student learning regarding the experimental method and statistical analysis as practiced by psychologists (Goal 5). Questions were modeled after those from a test bank included with a research methods textbook commonly used for the course, and the 301 faculty members judged the content validity of the exam as

adequate. The test is administered by 301 faculty in their classrooms to all 301 students during the first week (pre-test) and last week (post-test) of class. Students complete the test as they do other exams, by using a scantron form (without names). This increases the generalizability of the test scores as representing student learning. Scantrons are scored via Akindi and returned to the assessment coordinator.

### **Goal 6) An understanding of the ethics and values of the discipline**

Each Psychology major is required to complete the Basic course in the Collaborative Institutional Training Initiative (CITI) as part of the PS 301 class. This is an online program that provides a high quality, peer-reviewed, web-based educational course in research, ethics, regulatory oversight, responsible conduct of research, research administration, and other similar topics. Students are tested on their learning of the material via an online questionnaire after each module. They are required to achieve a minimum score of at least 85% correct in order to pass the training.

### **Goal 7) A readiness for graduate study or for transition into the workforce**

We assessed this goal in three ways. First, we reviewed historical enrollment trends in our PS190 course (preparing for graduate school). Second, we compile and examine post-college outcomes for the class of 2019. Finally, we reviewed findings from a professional development survey emailed to students in Spring, 2019.

## **Part 3. Findings**

*Prompt:* Describe, in words, what your program learned about student learning during this assessment cycle. What were your strengths? In what ways did students fail to meet the goals you set for them? Along with this report, please submit the data charts the program used during the assessment meeting.

### **Goal 1) A fundamental knowledge base in the core areas of psychological science**

MFT scores from the class of 2019 are presented in Table 1 below, with comparisons to all psychology majors who were administered the test under the same standardized conditions in the United States. The Hedge's  $g$  statistic quantifies the degree to which majors from our department scored relative to the national average. According to Cohen (1992),  $g$  values of  $|.20|$  are small,  $|.50|$  are medium, and  $|.80|$  are large. Thus, there is a moderate to large difference between scores from JCU psychology majors and a national sample of psychology majors administered the same test (JCU > National Comparison). In psychometrics, these scores indicate that JCU majors are "**high average**" in their fundamental knowledge base in the core areas of psychological science compared to the national average.

**Table 1**

## 2018 MFT-Psychology Scores

MFT Areas	2019 JCU Majors		National Comparison Group		Hedge's <i>g</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
<b>Total</b>	161	13	155	9	<b>.66</b>
<b>Learning, Cognition, Memory</b>	61	14	56	9	<b>.55</b>
<b>Perception, Sensation, Physiology</b>	59	13	55	8	<b>.50</b>
<b>Clinical, Abnormal, Personality</b>	60	12	56	8	<b>.50</b>
<b>Developmental and Social</b>	60	13	55	9	<b>.55</b>

### Goal 5) Mastery of the experimental method and statistical analysis as practiced by psychologists

PS301 pre-post test results are presented below in Table 2. The Cohen's *d* statistic quantifies the degree to which students' scores on the post-test improved from the pre-test. According to Cohen (1992), *d* values of  $|.20|$  are small,  $|.50|$  are medium, and  $|.80|$  are large. Thus, there is a **medium to large improvement** in student knowledge in the area of the experimental method and statistical analysis as practice by psychologists as a result of PS 301.

**Table 2**

#### 2019 Pre-Post Test Results for 301

<i>Pre-Test</i>		<i>Post-Test</i>		Cohen's <i>d</i>
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
15.7	3.4	18.3	4.1	<b>.63</b>

Of note, we have over 150 pre-post-tests since the inception of this assessment. As we planned in our last assessment report, we evaluated the functioning of the items and found that all questions were functioning appropriately. Thus, no changes to the assessment were needed.

### Goal 6) An understanding of the ethics and values of the discipline

As noted earlier, all Psychology majors are required to complete the Basic course in the Collaborative Institutional Training Initiative (CITI) as part of the PS 301 class. This is an online program that provides a high quality, peer-reviewed, web-based educational course in research, ethics, regulatory oversight, responsible conduct of research, research administration, and

other similar topics. Students are tested on their learning of the material via an online questionnaire after each module.

All students who took the assessment achieved a minimum score of at least 85% correct and successfully passed the training. They received certificates documenting their completion, which are logged by the John Carroll University Institutional Review Board.

**Goal 7) A readiness for graduate study or for transition into the workforce**

In Table 3 below, we present historical enrollment trends in our PS190 course (preparing for graduate school) since it was introduced in 2006. In general terms, enrollment numbers have been decreasing, with the exception of a “boom” year in 2016. Prior to Spring, 2019, the average enrollment was 17 with a range of 11 to 22. After reviewing this information in the Fall, 2018 semester, we developed a plan to communicate the importance of the course more effectively to students. This included mass emails and communications between department advisors and advisees during their advising meetings. As a result of this change, we increased enrollment in PS190 to 29 for the Spring, 2019, which was by far the highest enrollment in the course (previous high was 22). Furthermore, as we detailed in last year’s assessment plan, beginning this academic year, we developed and re-envisioned PS190 as a 2-credit hour professional development in psychology course. In the first year of this class we enrolled 76 students.

**Table 3**

**PS190 Enrollment Trends (all classes in Spring, except 2020)**

<b>Year</b>	<b>Enrollment</b>
<b>2020</b>	<b>76</b>
<b>2019</b>	<b>29</b>
<b>2018</b>	13
<b>2017</b>	12
<b>2016</b>	22
<b>2015</b>	15
<b>2014</b>	13
<b>2013</b>	18
<b>2012</b>	11
<b>2011</b>	19
<b>2010</b>	19
<b>2009</b>	19
<b>2008</b>	19
<b>2007</b>	18
<b>2006</b>	21

<b>06-18 AVG</b>	17
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In Table 4 below, we present post-college outcomes for the class of 2012-2018 based on based on clearing house information. . Overall, approximately 50% of students attend graduate school after graduation and 50% go into the workforce The data below will serve as an improved baseline to evaluate changes in the program in response to our re-envisioned professional development in psychology course.

**Table 4**

**2012-2018 JCU Psych Graduate Outcomes (Clearinghouse Data)**

Total Graduated (JCU)	363	
No Record Found	9	2.5%
No Subsequent Enrollment	131	36.1%
Subsequent Enrollment	124	34.2%
Subsequent Graduation	86	23.7%
Subsequent Graduation, Additional Enrollment	9	2.5%
Subsequent Multiple Graduations	4	1.1%
<b>Masters Programs</b>	<b>163</b>	<b>44.9%</b>
<b>PhD (Psych)</b>	<b>12</b>	<b>3.3%</b>
<b>Doctoral (JD, MD, Other)</b>	<b>10</b>	<b>2.8%</b>
<b>Workforce</b>	<b>178</b>	<b>51.0%</b>

We also introduced in Spring, 2019 a professional development survey, the results of which are summarized below. Here too, this is a baseline to evaluate improvements to our professional development program

**JCU Psychological Science - Professional Development Survey Executive Summary (Spring, 2019)**

**Demographics**

Overall, 76 students took the survey

Our department’s class years were well-represented by the sample

The sample is likely somewhat over-representative of high achieving students (~63% had a GPA of 3.4+)

**Coursework**

PS 190 enrollment rates were low (23% for current seniors)

PS 401 enrollment rates were somewhat low (29% for seniors)

PS 499 enrollment rates were very low (7% for seniors)

### **Student Goals**

Most students (89%) said that their ultimate goal was to obtain a graduate degree

Overall, 42% said their ultimate goal was a doctoral degree (in psych, law, or medical fields)

Across the board, students ranked **mentorship** as relatively unimportant to securing a job or graduate school enrollment.

In general, students tended to overestimate the competitiveness of a Master's program ( $M$  estimated GPA needed = 3.35). On average, their understanding of a GPA needed to be competitive for a PhD program was realistic ( $M = 3.68$ ).

### **Knowledge**

Students described needed guidance in the areas of: negotiating starting salary, how to make a CV, how to financially plan for future. They were not confident that they could make it into a doctoral program.

Students described strengths in the areas of understanding how employers will view their social media, how to achieve a good GPA, and thinking a lot about their career goals. They were very confident that they could earn admission into a Master's program, if they wanted to.

### **Qualitative Feedback**

Student feedback generated three primary themes for *areas for improvement*:

- 1) Earlier Contact about PD issues
- 2) Internships--Improve Advertising and Increase Variety
- 3) Need for Structured PD Programming

Student feedback generated three primary themes for *strengths*:

- 1) Availability of Internships
- 2) Mentorship
- 3) Research / Academic Training

## **Part 4. Planned Changes to the Assessment System**

### **4A. Changes to the Assessment System**

*Prompt:* What changes, if any, do you need to make to your assessment system? (Questions to consider include: 1) Do your measures and processes provide useful data with a reasonable amount of effort? and 2) Are your measures reliable, valid, and sufficient?) On which student learning goals do you plan to focus your attention during the next assessment cycle? Do you need to implement additional formative assessment tools to better understand some of your findings? If so, describe those here.

As noted, we are collecting reliable and valid quantitative and qualitative data to assess a variety of student outcomes. We plan to continue this plan and continue to focus on goals relating to professional development this year.

#### **4B. Changes to the Program in Response to Data**

*Prompt:* What changes, if any, do you need to make to your program in response to what you now know about student learning? (Possibilities include changes to learning goals, pedagogy, assignments in particular classes, activities, and curricular requirements and/or structure.) What is your anticipated timeline for both implementation and assessment of the planned changes?

In keeping with the goal of readiness for graduate study or for transition to the workforce, we plan on developing additional professional development programming. We also plan on coordinating with career services in a more deliberate way.

### **Part 5. Institutional Assessment Committee Interactions**

#### **5A. Feedback from IAC**

*Prompt:* Briefly summarize the feedback you received from the Institutional Assessment Committee about your last report.

We received positive feedback to continue monitoring student progress using reliable and valid assessments that statistically quantify success in objective terms. We were also given feedback to continue making an effort to revise and update assessment procedures.

#### **5B. Response to Feedback**

*Prompt:* Briefly describe how your program has made use of the feedback.

We continue to use objective measures of success, such as the standardized MFT, pre-post 301 test, and CITI program. We have also implemented a new professional development program and new assessments to target goal 7 (A readiness for graduate study or for transition into the workforce).

#### **5C. Request for Feedback**

*Prompt:* Do you have questions or concerns you would like the IAC or the Office of Institutional Effectiveness to address?

Not applicable.

### **Part 6. Evidence**

#### **6A. Of Changes**

*Prompt:* Look at previous Annual Assessment Reports to see what changes that the program planned to make at that time. If the changes have been made, please submit evidence of the change (department meeting minutes, syllabi or Bulletin pages from before and after the change). If you have decided to not make change, please provide your rationale.

As noted above, we addressed all three areas in which we planned to make changes (evaluating 301 pre-test/post-test, developing a professional development program, and developing baseline measurements for its effectiveness).

#### **6B. of Impact of Changes**

*Prompt:* Consider the changes reported in Part VI of this and previous reports. What impact has the change had? When the impact of the changes has been assessed, discuss whether changes have had the intended

impact and how you know. If the change is too recent or assessment is ongoing, you may wait for a future report.

In general terms, we have found that students score much better than the national average in their general knowledge of psychology (goal 1; as assessed by the MFT) and learn a large amount of information related to experimental methods and statistics in their PS301 course (goal 5; as assessed by pre/posttest). Further, they have a good understanding of ethics/values of the discipline (goal 6, as assessed by CITI training). Thus, it appears that we are doing well in these areas but we will continue monitoring and evaluating areas of needed growth. It is too early to tell whether or not improvements to the professional development program result in improvements, but we now have baseline measurements to assess progress in this area next year. At the very least, we know that we are now exposing over three times as many students to systematic information on professional development via the PS190 course.

### 6C. Academic Program Review Action Plan Update

*Prompt:* If your program has completed an Academic Program Review since 2011, please review your Action Plan from your most recent Academic Program Review, and add a column indicating the progress made on each item. Attach your update to this report.

As we stated in our 2016 Action Plan, the primary action items involve a lack of resources. The Northeast Ohio Region (NEO) holds a national and international reputation for the strength of its medical programs.. The science of Psychology and its focus on the relationship between mental and physical health has become widely -accepted in the medical community. Given the appropriate supports, we believe that Department of psychology has the potential to develop programs that will allow us to continue to move students into the workplace and graduate programs that meet the needs of the growing STEM discipline, as well as more traditionally-based areas of study. We have former students who have served as Managers of major research programs, are Physicians, Psychologists and Psychometricians with the Cleveland Clinic Foundation. Our alumni are Neuropsychologists working with the NFL on the issue of head injury and trauma as a neuropsychologist, run nationally recognized sports medicine practices, and are working as executives in business settings. The problem is not a lack of opportunity, but a lack of resources. We believe that with the proper resources, the Psychology department has an opportunity to become a leader in the discipline, as well as in the NEO region.

The 2016 action plan items and progress are listed below in Table 5.

**Table 5**

#### **2016 Academic Program Review Action Plan Items and Progress**

<b>Item</b>	<b>Progress</b>
The primary resource we needed was <b>human resources</b> . We were a department of 9, down, from 13 faculty just two decades ago. Visiting faculty, who typically taught four courses per semester, had allowed us to address some of the shortage in covering courses, but are not able to help long term. In the brief years in which Visiting faculty were hired, the rate of turnover was typically annual, even for faculty with three year appointments.	Since the 2016 review, two new full-time faculty members were hired (Anthony Tarescavage and Thomas Frazier) and one full-time faculty member retired (Beth Martin)

<p><b>Updated lab space.</b> While our lab spaces are still relatively new, some of our equipment requires replacing. It is more difficult to conduct reaction time studies, for example, without touch screen stimuli. The only touchscreen equipment we have is more than a decade old, and requires the use of an outdated CRT monitor</p>	<p>Approximately 30 computers in department lab spaces were updated</p>
<p>The investment of faculty would allow us to consider developing a graduate level program. Drs. Abdul Imam and Tracy Masterson are currently working toward certification in BCBA, as noted above. Dr. Imam, whose area of study is Behavior Analysis, has agreed to serve as the director of a certification program in BCBA, which can be offered to undergraduates. However, the introduction of at least 2 additional faculty would allow us to offer a <b>graduate level program in BCBA.</b></p>	<p>Dr's Imam and Masterson are still pursuing certification in BCBA, having recently taken classes over winter break. This area is within the scope of expertise of the newest faculty hire (Thomas Frazier). The department still needs resources to develop a BCBA program, and we have submitted a proposal to develop one to the strategic planning committee for new programs.</p>

## **Appendix – JCU Department of Psychology Courses Mapped to JCU Learning Goals**

### **JCU Learning outcomes**

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills
9. Understand the religious dimensions of human experience

### **PS 101 Introduction to Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 150 Violence and Aggression**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 175 Life Span Development**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 190 Preparing for Graduate School**

This course meets the following university learning outcomes:

3. Apply creative and innovative thinking
8. Employ leadership and collaborative skills

### **PS 226 Drugs and Behavior**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
3. Apply creative and innovative thinking
7. Apply a framework for examining ethical dilemmas

### **PS 241 Social Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 261 Child Development**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds;
2. Develop habits of critical analysis and aesthetic appreciation
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas
9. Understand the religious dimensions of human experience

### **PS 262 Adolescent Development**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas
9. Understand the religious dimensions of human experience

### **PS 295 Introduction to Special Topics**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 297 Introduction to Cognitive Science**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking

7. Apply a framework for examining ethical dilemmas

### **PS 299 Research Experience in Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 301/L Experimental Design/Analysis**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 310 Sport Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 318/L Sensation and Perception**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression

7. Apply a framework for examining ethical dilemmas

### **PS 326 Psychobiology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 332/L Learning and Behavior**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 342 Psychology of Prejudice**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 351 Theories of Personality**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 359 Industrial/Organizational Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 362 Health Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 365 Adulthood and Aging**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
7. Understand and promote social justice
8. Apply a framework for examining ethical dilemmas
9. Understand the religious dimensions of human experience

### **PS 370 Forensic Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 375 Clinical Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 381 Eating Disorders**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
3. Apply creative and innovative thinking
7. Apply a framework for examining ethical dilemmas

### **PS 380/L Human Memory and Cognition**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 386 Mind, Brain and Behavior**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 395 Special Topics**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 401 Advanced Research Methods in Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 407 Psychology of Autism**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking

5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 415 Multicultural Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 421 History and Systems of Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills
9. Understand the religious dimensions of human experience

### **PS 426 Psychopharmacology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
7. Apply a framework for examining ethical dilemmas

### **PS 435 Tests and Measurements**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 442 Lab Management in Psychological Science**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 455 Child and Adolescent Psychopathology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 457 Psychopathology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas

### **PS 459 Performance Evaluation and Goal Setting**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 462 Counseling Theory and Practice**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
5. Act competently in a global and diverse world
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 470 Children and Families in the Legal System**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 471 Seminar in Ethics of Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
2. Develop habits of critical analysis and aesthetic appreciation
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 476 Senior Seminar in Child and Family Studies**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
6. Understand and promote social justice
7. Apply a framework for examining ethical dilemmas

### **PS 477 Senior Seminar in Mental Health Services**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 478 Senior Seminar in Eating Disorders**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 479 Senior Seminar in Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 480-481 Practicum in Industrial/Organizational Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 482-483 Practicum in Mental Health Services**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking

4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 484-485 Practicum in General Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 486-487 Practicum in Child and Family Studies**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 488-489 Practicum: The Hospitalized Child**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression

5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 494 Internship/Seminar in Forensic Science**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
5. Act competently in a global and diverse world
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 495 Advanced Special Topics in Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 496 Readings in Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 497N Advanced Research in Neuroscience**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas

### **PS 498 Practicum in Research Methods**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
7. Apply a framework for examining ethical dilemmas
8. Employ leadership and collaborative skills

### **PS 499 Individual Research Project in Psychology**

This course meets the following university learning outcomes:

1. Demonstrate an integrative knowledge of human and natural worlds
3. Apply creative and innovative thinking
4. Communicate skillfully in multiple forms of expression
7. Apply a framework for examining ethical dilemmas