

Students' Guide to PSYC 300: Methods and Analyses Core Project

What is PSYC 300?

PSYC 300 (Methods and Analyses Core Project) is a research-based course that was recently added to [the psychology curriculum](#). Students may enroll in PSYC 300 after completing PSYC 200 (with a grade of C- or better), and prospective majors are strongly encouraged to do so as soon as possible after completing PSYC 200.

PSYC 300 is best conceptualized as a “how to” course. In other words, the focus of the work is on *how to put the principles that you learned in PSYC 200 into practice* in the pursuit of new scientific knowledge. This course will challenge you to read, think, and behave like a psychological scientist.

What should I expect to do while taking PSYC 300?

In PSYC 300, you will work closely with a psychology faculty member to conduct research in a sub-discipline of psychology (e.g., clinical, cognitive, developmental, health, social, etc.). The major learning objectives of the course will be met through hands-on research activities within that sub-discipline, which may include literature reviews, study design and programming, data collection and analysis, and disseminating results through the creation and presentation of research posters and papers. Students across lab sections of PSYC 300 will also meet jointly to discuss general research topics (e.g., principles of research design, research ethics, working with community members) and to participate in colloquia with invited speakers. The course culminates in a department-wide research poster session in which PSYC 300 students will report the results of their project-based work during the semester.

As with all 1-unit courses at the University of Richmond, PSYC 300 students are expected to devote **10-14 hours per week** to course activities, including attending scheduled lab meetings and colloquia, completing assigned readings, working on assignments, and completing research-related tasks (e.g., data collection, scoring/coding, etc.). In addition to the MWF, 12:00-12:50pm, time slots that are reserved for this course, you should expect to work with your faculty mentor to identify additional “lab hours,” during which you will be working in the lab to complete research-related tasks.

Does this curriculum change affect me?

Maybe. Psychology majors whose date of first enrollment at UR was in Fall 2017 or later (including transfer students) are required to take PSYC 300 to fulfill the major requirements. Psychology majors who enrolled at UR before Fall 2017 are not required to take PSYC 300 to fulfill the major requirements, though they may do so to fulfill one of their elective courses. Psychology minors (regardless of their date of UR enrollment) may take PSYC 300 to fulfill one of their elective courses for the minor (provided they have not yet taken PSYC 361), though they are not required to do so.

How does this curriculum change benefit me?

PSYC 300 is designed to increase the rigor of the psychology major and to further develop the methodological and analytical knowledge that you gain in PSYC 200. It does so by providing an opportunity for you to work closely with a faculty mentor in an intensive, research-based course that requires considerable “hands on” (or experiential) learning. Students who complete this course will be able to contribute to and evaluate scientific research with greater skill and confidence. And, for all students, regardless of their career plans, it is expected that PSYC 300 will foster your intellectual curiosity, creativity, critical thinking, and skill in interpersonal communication, and better prepare you to excel in your post-college life.

For students who are planning to apply to graduate school in psychology or a closely related field, it may also be useful to conceive of PSYC 300 as a stepping-stone in your undergraduate psychology career. Completing at least one unit of PSYC 300 by your junior year may better position you to pursue a Summer Research Fellowship following your junior year, which in turn would lay the groundwork for completing a senior research project or honors thesis the following year. Your academic advisor would be happy to help in planning such a timeline for your undergraduate career.

How do I register for PSYC 300?

Here are the steps involved in the PSYC 300 registration process.

1. Register for PSYC 300, **Section 11** on BannerWeb as part of the standard registration process during your [assigned registration rotation](#). This is a general section of PSYC 300 and simply a placeholder for the individual faculty lab section that you will ultimately be enrolled in.
2. Complete the section preferences form available at <https://tinyurl.com/psyc300sp19> as soon as possible, but no later than Friday, November 9, 2018.
3. No later than November 16, 2018, you will be notified by the PSYC 300 Course Coordinator of your individual faculty lab section assignment. At that point, you will be asked to: (a) drop the general section of PSYC 300 and (b) register for your individual lab section in BannerWeb.

Please note that, though this initial round of section matching will conclude by November 16, we will continue to monitor newly submitted registrations and section preferences forms and to match students based on their preferences through the open registration period (Monday, January 28, 2019).

Why does the registration process happen in this way?

Each faculty member offering PSYC 300 during the Spring 2019 semester only has a limited number of registration slots. Thus, we are experimenting with a different registration process in an attempt to ensure that each student is enrolled in a section that best matches their interests.

I have a course conflict. Can I still register for PSYC 300?

No. PSYC 300 is scheduled for MWF, 12:00-12:50pm, for the Spring 2019 semester. During these hours, you will be expected to attend lab meetings and colloquia and to be present and available for other course-related work. So, it will not be possible to receive course conflict overrides.

Can I take PSYC 300 more than once?

Yes. With the instructor's permission, you may repeat PSYC 300 for credit.

For psychology majors: If you did so, the second unit would count toward the major requirement for "three electives at the 300 or 400 level." Note though that no more than two units of 300-level research coursework (PSYC 300 and/or PSYC 361) may be applied to the major.

For psychology minors: If you did so, note that the second unit would not count toward your minor requirements. No more than one unit of 300-level research coursework (PSYC 300 and/or PSYC 361) may be applied to the minor.

What is the difference between PSYC 300 and PSYC 361?

PSYC 300 (Methods and Analyses Core Project) and PSYC 361 (Independent Research) are similar in that both involve working closely with a psychology faculty member to conduct research and are situated at the 300-level of the curriculum. However, PSYC 300 is required for majors (whose date of first enrollment at UR was in Fall 2017 or later, including transfer students), whereas PSYC 361 is not. PSYC 300 is also a traditionally graded course that is only offered in 1-unit increments, whereas PSYC 361 is available as pass/fail only with .5- and 1-unit options available.

Where can I find out more about each lab?

Information about faculty members' labs and research programs are available on [the psychology website](#). Short descriptions of each lab that is offering PSYC 300 in the Spring 2019 semester are also included on the following pages.

Heroism Science Lab | [Dr. Scott Allison](#)

How do people become heroes? What psychological needs do heroes satisfy? What separates heroes from villains and good from evil? The Heroism Science Lab addresses questions such as these using a variety of methods, including survey research, interview techniques, qualitative analysis, and experimental methodology. Current research studies are examining the difference between heroism and leadership; the role of gender and gender stereotyping in hero and leader development; the psychological differences between personal and cultural heroes; and cross-cultural differences in heroism and in perceived heroism.

Berry Lab | [Dr. Jane Berry](#)

As human beings, we are remarkably adept at remembering certain things and forgetting others. How do these memory and forgetting tendencies change over the life span? What allows us to remember vividly our first kiss or the site of the Grand Canyon at sunset but to forget an embarrassing social encounter, or to distort it so that we remember it more positively than it actually occurred? As we age, how is it possible that we can forget the name of someone we met two minutes ago but easily recall the name of our first-grade teacher? The Berry Lab investigates these and other cognitive changes associated with aging, and how people think about those changes (metacognitive aging). We are particularly interested in memory. For Fall 2018, we will focus on memory strengths and deficits associated with aging, including research on the "positivity bias" and research on the types of memory errors that older adults make. Our methods include online surveys, individual testing sessions, and eye-tracking techniques. Students in this lab must be comfortable interacting with adults ranging in age from 18 to 98.

Beyond Categories Lab | [Dr. Cindy Bukach](#)

The Beyond Categories Lab explores the factors that influence the way the brain becomes specialized for categories, and what happens when expertise for categories fails to generalize. For example, we are currently investigating how racial bias and other-race effects emerge and transform with changes in experience, task demands, and context. The lab uses both behavioral and cognitive electrophysiology to identify the organization and timing of cognitive processes associated with categorization. This enables us to identify and target methods to ameliorate other-race bias. This research is important because categorization has a profound impact on how information is processed in the brain, which in turn influences how we perceive, interpret, and act upon that information. One of the specific aims of the Beyond Categories lab is to provide students with an opportunity to participate in neuroscience research. The lab is currently engaged in a multi-institutional effort to build a database of electrophysiology experiments and measures of individual difference in personality, experience, psychological and physical wellbeing that can be used to answer a variety of questions connecting brain and behavior.

Crawford Lab | [Dr. Beth Crawford](#)

The general question that drives my work is: How does memory integrate multiple sources of information? More specifically, we examine how prior expectations and stereotypes influence memory for faces, how prior experience with certain objects influences memory for a specific object, and what kinds of information are integrated during spatial route learning. Although we usually examine human memory and learning, in Spring 2019, we will focus on spatial learning in the rat. Specifically, we are manipulating how rats move through a space in order to examine how their mode of transportation affects their spatial learning. Students in this lab must be comfortable conducting research on animals and handling rats. Students who like programming and robotics might especially enjoy some of the technical aspects of this research.

Jobe-Shields Lab | [Dr. Lisa Jobe-Shields](#)

What difficulties do parents with posttraumatic stress symptoms face in their parenting and interpersonal relationships? What role does parenting play in the intergenerational transmission of trauma? Students in this lab will explore the answers to questions such as these using a variety of methods, including community-based participatory research, self-report surveys, observational studies, and partnerships with local agencies who serve individuals impacted by trauma such as the local child advocacy center and correctional settings.

Project YEARS (Youth Emotional Adjustment and Relationships in School) | [Dr. Karen Kochel](#)

Work in our lab focuses on children's psychosocial adjustment in school. Research questions include: What processes underlie across-time transactions between depression and peer relationship difficulties? What factors mitigate or amplify prospective links between depression and peer relationship problems? How do children's psychological and social adjustment affect their success in school? In Spring 2019, our focus will be on collecting data in fifth grade classrooms in one elementary school and preparing data for analysis. We will also continue work on a second project, which is focused on developing and implementing a classroom-based intervention that aims to promote positive intergroup peer relations and reduce racially- and gender-based victimization among children in elementary school.

[Behavioral Neuroscience Lab](#) | [Dr. Kelly Lambert](#)

In general, behavioral neuroscience explores the connections among the brain, behavior and environment. In the UR behavioral neuroscience lab, we are interested in experience-based neuroplasticity—such as the neurobiological effects of parenting experience, enriched environments, and effort-based reward contingency training. We use various behavioral tasks with our rodent (rat) model; most behaviors are monitored with a computerized observational system. Additionally, endocrine assays are conducted on fecal samples to quantify targeted hormone levels and immunohistochemistry techniques are used for neural analyses. Various microscope-computer stations are provided in the lab to quantify stained neural tissue. The theme for Spring 2019 will likely focus on types of environments that lead to adaptive and healthy behavioral and neural functions. Because our experimental model is the rat, students will be trained to handle and care for laboratory rodents before commencing research. Consequently, students need to be comfortable handling animals to conduct behavioral neuroscience research.

Lowder Language Lab | [Dr. Matthew Lowder](#)

What's going on in your mind right now to allow you to comprehend the sentence you're reading? The primary focus of this lab is to understand the cognitive processes involved in language comprehension. Students will learn how to use eyetracking technology, which allows researchers to monitor participants' eye movements as they read sentences or view other visual stimuli. Our eyetracking experiments are designed to uncover how language processing occurs on a millisecond-by-millisecond basis. Some of the questions our lab investigates include: What are the memory processes involved in language comprehension? How do we process figurative expressions? How can we best account for individual differences in reading behavior? To what extent does the language comprehension system predict upcoming linguistic input? In addition to learning eyetracking techniques, students may be involved in behavioral experiments (e.g., asking participants to rate the acceptability or plausibility of sentences), corpus linguistics (e.g., investigating how frequent certain words or sentences are in the English language), and administering cognitive tests.

Lundberg Lab | [Dr. Kristjen Lundberg](#)

Using a variety of methods, including behavioral experiments, quantitative methods, and community-based learning, students in the Lundberg Lab explore the answers to questions such as: How do social group-based disparities relate to our social thoughts, feelings, and behaviors? Why do people sometimes act in prejudiced ways even when they intend to be fair? And, most critically, how and why do status-related disparities (i.e., inequalities) exist and persist? In Spring 2019, we will be focusing particularly on how implicit bias—automatic negative feelings toward members of a social group—differs both between individuals and within the same individual over time.

Nonterah Lab | [Dr. Camilla Nonterah](#)

Using both qualitative and quantitative data collection methods, mainly with community samples, students in the lab will learn about health disparities and health equity, solid organ transplantation and positive psychology. Questions typically addressed include: How do demographic factors such as race, gender and age impact a patient's ability to access health services and treatment? How can we better identify patients who are at risk for not accessing health services? What interventions can we develop to help reduce health disparities? How is forgiveness displayed among certain African cultures?

**** Not accepting PSYC 300 Students for Spring 2019 ****

Knouse Lab | [Dr. Laura Knouse](#)

The Knouse Lab investigates self-regulation problems in people with and without Attention-Deficit/Hyperactivity Disorder (ADHD) with a focus on cognitive and behavioral interventions to help improve self-regulation—particularly in college students. We employ a variety of methods including experimental studies of learning and metacognition, questionnaire-based studies, and meta-analysis.

What if I still have questions about PSYC 300?

If, after reviewing the information here, you still have a question about PSYC 300, you may email the Course Coordinator, Dr. Kristjen Lundberg, at klundber@richmond.edu.