

# Duke Psychology and Neuroscience

## Course Research Requirement

Certain courses in the Department of Psychology and Neuroscience include a research requirement. This requirement can be satisfied in one of two ways: (1) by being a participant in research studies being conducted in the department, or (2) by writing a critical review of a research article.

### Why Some Courses Include This Requirement

As in all scientific disciplines, education in psychology and neuroscience includes providing students with opportunities to learn about the research methods used in the field. As a result, several courses in the department require that students obtain first-hand experience with the research process, much like other sciences expose students to research procedures through laboratory sections. The goal of this requirement is for you to learn about how psychological research is designed and conducted, the sorts of questions that researchers study, how the results are used to understand human behavior, and the variety of research questions that can be studied using psychological methods. In addition to giving students first-hand experience with the content and methods of psychological research, this requirement also helps to fulfill the department's educational mission of training new researchers. By participating in research being conducted in the department, you are contributing to the education and training of other Duke students.

In addition to gaining a more complete understanding and appreciation of psychology, the Research Requirement provides other benefits to you and others. First, you may discover an area of psychology that fascinates you, leading you to want to take additional courses, do further reading, or even major in psychology and neuroscience. Second, when you act as a participant in a research study, you are helping Duke faculty and students learn more about human behavior. As your textbook shows, we already know a lot about human behavior, but there is so much more to learn; therefore, continuing to conduct scientific studies is essential to our field and society.

This Research Program offers a variety of opportunities for you to learn about psychology and, in the process, satisfy the psychology research requirement. More information is provided below about the requirement.

### General Information

**If you are enrolled in PSY 11, PSY 91, PSY 92, PSY 97, or PSY 99**, you must either participate in 5 hours of research or complete the paper assignment. If you do the Research Participation Option, one of the five hours must be completed at the DIISP Labs at Erwin Mill (located just off campus on the corner of 9<sup>th</sup> and Main Street).

**If you are enrolled in PSY 114, PSY 116, or PSY 119A**, you must participate in 3 hours of research or complete the paper option.

Note that, *if you are enrolled in more than one of the courses listed above* with the Course Research Requirement and elect to participate in research, you must fulfill the requirement for all of the courses. However, if you are enrolled in two classes with the Course Research Requirement, you will be required to complete no more than 8 credit hours. (If you are enrolled in two classes that require 5 research hours, you will receive one, non-study credit hour for each class. This will effectively bring your required hours of participation -as shown in the online Experiment Sign-up Program - from 10 credits to 8 credits.)

Failure to fulfill the research requirement for this course will result in an incomplete in the course. Incomplete grades are governed by University policies and it is up to your instructor to decide how to handle your final grade if you have not completed the research requirement.

The research requirement is administered by the Psychology and Neuroscience Subject Pool Committee, composed of faculty members in the department. If you have questions about the requirement or your status during the semester, submit them via e-mail (along with your name, e-mail address and phone number) to the Human Subjects Coordinator, Brooke Boyle, at [brooke.boyle@duke.edu](mailto:brooke.boyle@duke.edu).

## Getting Started

Research credits are earned through the Psychology and Neuroscience Experiment Sign-Up Program (ESP), which is run through the following web site: <http://duke.sona-systems.com>. All credit-earning studies are posted on the ESP web site, and you must sign up for each study before participating in it.

Follow these steps to get started:

1. Make sure that you have a relatively new web browser. If you do not, you can still use the system, but it works best with a newer web browser.
2. Your NetID and Password for the ESP will be emailed to you on Friday, January 11<sup>th</sup> by Brooke Boyle, the Human Subjects Coordinator.
3. Once you have received your login and password, go to the Experiment Sign-up Program (ESP) online at <http://duke.sona-systems.com>.

**If you are unable to log in:** contact the Human Subjects Coordinator, Brooke Boyle, at [brooke.boyle@duke.edu](mailto:brooke.boyle@duke.edu) or 660-5793.

4. You must change your password during the first time that you log in. To change your password, go to “my profile,” where you will be asked to enter your current password and then your new password. Be sure to click “update” when you are done.

5. Explore the information on your account, and, when you are ready to start earning credits, read the next section.

**Note:** For security reasons, your session will expire after a period of inactivity. If this happens, you can simply log in again. When you are done using the system, explicitly log out to prevent problems that may arise if someone uses your computer before the session expires. This is especially important if you are using a public computer lab.

## Earning Credits

When you first login to the Experiment Sign-Up Program (ESP), you will see an “experiment” called “**Research Requirement**” available for you. ALL students must complete the online form called “**Research Requirement**” to declare whether you will be participating in the Research Participation Option or the Paper Option. This form is due no later than **Friday, January 25<sup>th</sup> at 5pm**. You will not be able to participate in any studies until this form is complete!

Depending on whether you opt to fulfill the requirement with the **Research Participation Option** or the **Paper Option**, follow one of the sets of instructions below.

### Research Participation Option:

If you elect the Research Participation Option, you should start participating in the studies as soon as you can. If you wait until the end of the semester, you might not have enough time or opportunities to earn all of your credits, so be certain to start soon. A lack of opportunities at the end of the semester is not an acceptable excuse for failing to complete the requirement; there will be more than enough opportunities to earn the required credits but only if students do not wait until the end of the semester. Please note that it sometimes takes a week or two before there are a lot of options available; don't worry, just keep checking and you will find plenty of opportunities.

You may participate immediately in the online **PRE-SCREEN**. This on-line study is worth one credit toward fulfilling the requirement and will be available from **Monday, January 14<sup>th</sup> at 8am until Friday, January 25, 2008 at 5pm**. In this Pre-screen Study, you will be asked to complete a questionnaire. Your answers to these questions, which will be confidential, will be used for research purposes, often by the ESP to automatically determine your eligibility to participate in certain other studies (for example, certain experiments may need people who are not color blind or who are left-handed). If you do not complete the Pre-screen Questionnaire, you will not be eligible to participate in any of the studies for which researchers use this pre-test as selection tool. Thus, you are strongly encouraged to participate in the Pre-screen Study to increase your available research opportunities during the semester, and it will count towards your total required credits. *You must complete this online questionnaire no later than 5pm on Friday, January 25, 2007.*

In general, the number of credits that you earn in a particular study is roughly equal to the amount of time that the study requires. For example, studies that take 35 to 60 minutes are worth 1 hour of credit. An activity that lasts for 30 minutes or less is worth 1/2 hour credit. An activity that takes about two hours is worth 2 credits. If you miss an activity (without canceling 24 hours in advance), you will receive a penalty of 0.5 credit hours (penalties are subtracted from your total earned credits).

1. To sign up for experiments, log in to your ESP account (see the section on "getting started") and click, "experiment sign up." You can look at the experiments that are available and click on the name of a study to read more about it (the description also notes the number of credits you can earn for participating). If there are available times for you to sign up, click the "timeslots" link that takes you to the available dates and times of the study (note that you must also choose a date or dates to check for available timeslots). If you check and cannot find available timeslots, check back again; new dates and times are posted regularly.
2. When you find a date and time that you want, click on "sign up." Wait until you see a confirmation that you have signed up for the experiment. When you see the confirmation on the screen, write down the date, time, location (building and room number), experiment name, and name of experimenter. Do not wait until the day of the experiment to record this information because, occasionally, you might not be able to access it. Also, do not show up at the psychology building and expect someone to be able to look up your experiment time and location for you. The psychology department office staff will *not* look up experiments or other research activities for you.
3. New research studies, as well as new dates and times for the existing studies, are added regularly, so check back on a regular basis if you do not see anything that works for you.

## **Paper Option:**

The second option for fulfilling the research requirement is to write a critical review of a published research article in psychology or neuroscience. The purpose of this assignment is for you to study one research project in depth so that you learn how the research project was designed and conducted, what questions were asked, what results were found, and how the results related to the original research questions. Students who select the paper option are expected to spend about the same amount of time in reading and preparing a paper as other students spend in their experience as research participants.

If you choose the paper option, select a journal research article and write a paper describing the rationale, methods, results, and interpretations of the research project. The paper should be at least 5 pages in length (PSY 11, 91, 92, 96 and 99) or 3 pages in length (PSY 114, 116 and 119A). You must get approval in advance for your choice of an article from your course instructor, who will either assign a particular article or allow you to choose from the list below. The deadline for this paper should be coordinated on an individual basis between you and your instructor.

### *Sample Articles for Paper Option*

Atkinson, R. C., & Shiffrin, R. M. (1977). Human memory: A proposed system and its control processes. In G. W. Bower (Ed.), *Human memory: Basic processes*. New York: Academic Press.

Buss, D. M. (1985). Human mate selection. *American Scientist*, 73, 47-51.

Ceci, S. J., Ross, D. F., & Toglia, M. P. (1987). Suggestibility of children's memory: Psycholegal implications. *Journal of Experimental Psychology: General*, 116, 38-49.

Cronbach, L. J. (1957). Two disciplines of scientific psychology. *American Psychologist*, 12, 671-684.

Daly, M., & Wilson, M. (1988). Evolutionary social psychology and family homicide. *Science*, 242, 519-524.

Dawes, R. M., Faust, D., & Meehl, P. E. (1989). Clinical and actuarial judgment. *Science*, 243, 1669-1674.

Hurvich, L., & Jameson, D. (1974). Opponent processes as a model of neural organization. *American Psychologist*, 29, 88-102.

Kahneman, D., & Tversky, A. (1973). On the psychology of prediction. *Psychological Review*, 80, 237-251.

Kimble, G. A. (1989). Psychology from the standpoint of a generalist. *American Psychologist*, 44, 491-499.

Kimble, G. A. (1990). Mother Nature's bag of tricks is small. *Psychological Science*, 1, 36-41.

Livingstone, M., & Hubel, D. (1988). Segregation of form, color, movement, and depth: Anatomy, physiology, and perception. *Science*, 240, 740-749. [Requires background in neuroanatomy and perception.]

Miller, G. A. (1956). The magic number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63, 81-97.

Savage-Rumbaugh, S., McDonald, K., Sevcik, R. A., Hopkins, W. D., & Rupert, E. (1986). Spontaneous symbol acquisition and communicative use by pygmy chimpanzees (*Pan paniscus*). *Journal of Experimental Psychology: General*, 115, 211-235.

Slovic, P. (1987). Perception of risk. *Science*, 236, 280-285.

Solomon, R. L. (1980). The opponent-process theory of acquired motivation. *American Psychologist*, 35, 691-712.

Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review*, 93, 119-135.

Swets, J. A., Tanner, W. P., & Birdsall, T. G. (1961). Decision processes in perception. *Psychological Review*, 68, 301-340. [Theory of signal detectability.]

Tulving, E. (1985). How many memory systems are there? *American Psychologist*, 40, 385-398.

## **Canceling Research Activities**

If you sign up for an experiment through ESP, you can cancel it up until 24 hours before it. You have two options to cancel:

1. You can cancel by logging into your ESP account, clicking on "my schedule," and finding the experiment that you wish to cancel. You must click "cancel," and then you will be taken to another page and asked if you would like to cancel. You have to click "yes, I would like to cancel" before you are cancelled. Also, you must wait to receive a confirmation. If you do not receive a confirmation, you have not been cancelled and you will be penalized.
2. If you cannot get to a computer, you can **call** (do not stop by or email) the Human Subjects Coordinator to cancel (Brooke Boyle is at 660-5793) at least 24 hours in advance. Leave a voice mail if you do not reach her. If you call, provide your name, Net ID, the date and time of the study that you wish to cancel, and the study name. If you do not provide all of this information, you will not be cancelled, and you may be penalized (see below). Brooke will not return phone calls to confirm a cancellation or to clarify unclear information; if you leave the appropriate information with her, she will cancel, and the system will automatically send an email to you indicating that your cancellation was processed.

If you have a true emergency and cannot cancel 24 hours in advance, and you can provide documentation for your emergency, then call Brooke within two days after the missed activity to discuss the possibility of removing the penalty.

## **Penalties**

*If you do not cancel in time, or if you do not show up at the time that a study is scheduled to begin, you will receive penalty of -0.5 credit hours.* Please note that if you are even 1 minute late for an experiment or activity, it may start without you, which means that you may be penalized. Penalty credits are like negative credits that you have to make up. For example, if you earn 2 penalties (-0.5 credits each; -1 credit total), you have to earn 1 credit hour to make up for those penalties, plus the credits that you have to earn to fulfill the research requirement. Therefore, try really hard not to get any penalties!

Another reason to avoid penalties is that penalties can cause you to lose your ability to earn credits. If you earn 3 or more penalties, your ESP account will be "frozen" and you will lose your ability to earn additional credits until you speak with Brooke to work out a plan to make up for the penalties.

## **Satisfying the Requirement: The Credit Total**

Your credit total must equal 5 or 3 credits (depending on which class you are taking) by 5 PM on Wednesday, April 23, 2008. If you chose to participate in the Paper Option, you must work with your individual instructor regarding a deadline. If you do not complete the requirement by the deadline, you will receive an incomplete grade in your class.

\*\*\*If you are taking multiple classes with a research requirement, you must satisfy the requirement for EACH class (not to exceed 8 credits within one semester).

\*\*\*Remember that if you are taking class **PSY 11, PSY 91, PSY 92, PSY 97, or PSY 99**, you must complete one credit hour at the Erwin Mill location.

\*\*\*Your credit total equals the credits you have earned minus the penalties. For example, if you earn 5 credits and 1 penalty (-0.5 credits), your credit total is 4.5; this does NOT satisfy the requirement.

## **Keeping Track of Your Progress**

To see a list of your scheduled experiments and activities, to view your earned credits and penalties, or to see your credit total, log in to your account and click on "my schedule/credits."

## **Handling Scheduling and Other Conflicts**

If you have difficulty finding studies that fit your schedule, keep checking. New opportunities are posted on an ongoing basis.

If you have an unusually busy schedule and you believe that you cannot find ESP activities that work with your schedule (and if you are able to provide documentation of your schedule), contact Brooke Boyle. If you contact her before February 1, 2008, she can help you make arrangements for earning your credits. If you wait until after February 1st, other arrangements cannot be made and you will need to complete the paper option.

## **The End of the Semester**

The last day to earn credits is Wednesday, April 23, 2008 at 5:00 PM. Experimenters will have until 6:00 PM that day to post all of your credits to your account. Therefore, you should check your account on Thursday, April 24<sup>th</sup> to make sure that all of your credits have been posted; contact the administrator (Brooke Boyle) on April 24 (by phone) if you believe that there is an error. On April 25, credit reports will be provided to your instructor by the Human Subjects Coordinator (Brooke Boyle). You do not need to provide credit information to your instructor.

## **For More Information**

If you have questions about any of this information, the **FIRST STEP** is to carefully re-read this guide. The **SECOND STEP** is to email the Human Subjects Coordinator, Brooke Boyle, at [brooke.boyle@duke.edu](mailto:brooke.boyle@duke.edu). If she does not respond within one business day, send another email or call her at 660-5793. If you leave a phone message for Brooke, speak your name and phone number very clearly, and indicate why you are calling. It is your responsibility to make efforts to contact Brooke if you have questions or concerns that are not resolved; she returns all calls promptly but cannot do so if incomplete information is provided on voice mail.