

ANGST Lab - Major Project General Guidelines

PSY 3901W Requirements (BS Students)

Last Updated: 04/04/18

Completing a major project within the ANGST Lab can involve either a literature review or data analysis project. A literature review project is less time-intensive and will not involve active supervision. A data analysis project will involve active supervision from a graduate student, and because of this, we ask that you follow the guidelines below to ensure that the collaboration with your graduate student supervisor runs smoothly. Although the data analysis option is more time-intensive, it can be a great way to learn more about the data we collect, get involved in the scientific process, and improve your CV. This option is encouraged for those who plan to apply to graduate school. A data analysis project might also turn into a poster or manuscript for students who are willing to put in additional effort.

Major projects should not be completed during your lab hours, unless there is overlap with lab duties (requires permission from your Graduate Student Advisor or the Lab Manager). Exceptions to some of these guidelines below may be considered on a case-by-case basis; talk to your graduate student advisor if you have any questions.

A) Lit Review Project

Minimum Qualifications:

1. You must have completed at least **one** semester in the lab (can include summer).
2. You must be in good standing in the lab (i.e., meeting your minimum hours and putting forth good work)

Grad Student Involvement:

3. You should notify your graduate student supervisor if you plan to complete a literature review major project.
4. This type of project will **not** involve active graduate student supervision. The graduate student may be a resource for things such as:
 - a. Tips for conducting a good literature search
 - b. Tips on writing a good literature review
 - c. Tips on how to streamline the literature review process
 - d. Provide **light** edits to your final literature review. What “light” means depends on your graduate student supervisor. Please speak to them for more information.
5. The topic of your literature review does not necessarily need to be related to the lab. However, please note that a topic related to the lab will allow for optimal graduate student input.

B) Data Analysis Project

Minimum Qualifications:

1. Graduate student advisor has availability.
1. You must have completed at least **two** semesters in the lab (can include summer).
2. You must demonstrate the following:
 - a. Ability to do basic data analysis using SPSS or R (we recommend the SPSS Statistics Essential Training course at www.lynda.com, which is free to UMN students)
 - b. Understanding of the study design and method used to collect data (e.g. behavioral task, psychophys, fMRI)
 - c. Ability to articulate scientific questions driving your project
3. You must adhere to the “Data Analysis Timeline” as outlined below. Failure to do so will result in forfeiture of graduate student help, and therefore, forfeiture of the ability to do a Data Analysis major project within the ANGST lab.
4. Your research question **must** be (a) specific and (b) able to be reasonably answered with our available data.
 - a. Examples of specific research questions from past major projects:
 - i. *“How do physiological responses to ambiguous threat cues, compared with non-ambiguous threat cues, differ in those with high and low trait anxiety?”*
 - ii. *“Do impulsivity-related personality traits predict rates of acoustic startle habituation?”*
 - iii. *“Will people who demonstrate higher levels of trait fear demonstrate deficits in inhibition of fear when in a safe context, and will fear inhibition abnormalities be more pronounced in relation to the conditioned value of the stimulus even when in a safe context?”*
 - b. Examples of research questions that are too broad:
 - i. *“How does personality play into anxious tendencies?”*
 - ii. *“Is fear generalization a product of attentional deficits?”*
 - iii. *“Do those with higher anxiety generalize more?”*
 - iv. *“Is depression related to fear-conditioning?”*

Graduate Student Involvement:

You, not the graduate student, are responsible for taking initiative on this project. This includes:

- Developing a research question
- Performing the analyses (the graduate student can help mentor you in analyses you don't know; but this does not mean doing them for you)
- Writing the final paper
- Creating the poster

The graduate student will provide project guidance, contingent upon the student demonstrating adequate effort and following the timeline below. Guidance may include:

- Making sure your research question is appropriate given the available data
- Making sure you know how to navigate and interpret the raw data for your project
- Teaching data analyses you do not know
- Giving follow-up recommendations for data analyses
- Giving recommendations for improving your final poster

Data Analysis Timeline

Everything that is “due” in the timeline below is due to your Graduate Student Advisor. You may notice that certain things may be due earlier on our timeline compared to your PSY 3901 syllabus. This is so your Graduate Student Advisor can help you with your project within a reasonable timeframe. It is encouraged that you come to your Graduate Student Advisor much earlier than the due date with a research question. If you do this, they can offer guidance and feedback on how to fine-tune your research question.

MP = Major Project

What is Due	When
1. Notify Grad Student Advisor of Your Intention to do MP	Before you sign up for PSY 3901
2. Specific Research Question/Hypotheses	By the end of the semester preceding your MP semester, although it is strongly encouraged that you have a question before signing up for PSY 3901 For example, if you wish to enroll in PSY 3901 for the Spring 2018 semester, you must have a research question confirmed with your grad student supervisor by the last day of classes of the Fall 2017 semester.
3. Methodology - Data Analysis Section	Friday of the 2nd week of classes in MP semester
4. Data Analysis Draft	4 weeks (to the day) before poster presentation
5. Poster Draft	2 weeks (to the day) before poster presentation