



# SCANN LAB

## SCANN Lab Manual

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## 1 Welcome

Welcome to the **Spatial Cognition and Navigational Neuroscience** Laboratory at the University of Florida, directed by Steven Weisberg.

Maybe you are just joining the lab or need a refresher on lab policy. Or maybe you're just curious about how we do things. Either way, we're glad you're here! This lab manual is an introduction to how we do work and science in the SCANN lab. The material you find here describes some overarching lab policies, the lab structure, and how to get started. It is also a living document and the manual itself is an introduction to some of the tools you will use when working in the lab (like RStudio, Git, and Slack).



Figure 1: Lab logo

Our lab manual is open to the public and can be shared under a GNU-3.0 license (the Github repo is [here](#), but we have also borrowed heavily from others, including [here](#), [here](#), [here](#), and [here](#).

You can also find SCANN lab:

- On the web
- On Twitter
- On Github
- On Open Science Framework<sup>1</sup>

## 2 All Lab Members

In the SCANN lab, we practice careful, deliberate, open science. This means that every person in the lab has a responsibility to make sure their projects are well-documented, reproducible, and undertaken with an eye toward the future. The following are a few more specific guidelines.

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<sup>1</sup>You will also find our lab wiki [here](#).

## 2.1 Rights

- **You have the right to a work environment free from prejudice, bias, harassment, and discrimination** We have a strong focus on inclusion, diversity, and a harassment-free workplace (UF guidelines are [here](#).) At all times, we treat each other, our participants, and our science with respect. (This does not mean we cannot argue - passionately, if need be. Dissenting opinions and knowing when to stand up for your opinion and when to back down, are in fact critical aspects of the scientific process.) You have the right a workplace culture that supports you, your career, and your expressions (as long as these rights don't violate the rights of others.) For more on these ideas, see some notes on workplace culture in an anti-racist context [here](#).
- **You have the right to make mistakes.** No one is perfect. Dr. Weisberg has (probably) made bigger mistakes than you will during your time in the lab. (Ask him sometime.) Science is hard, and the work we do is at the edge of knowledge. This is very cool. But also means we are much more likely to make mistakes that we don't catch right away. Below, you'll see what your responsibilities are if (when) you make a mistake.
- **You have the right to have ideas.** No matter how strange.
- **You have the right to criticize ideas.** You are expected to criticize your own ideas! But you should also think critically about the ideas of others (including and perhaps especially Dr. Weisberg.) And, when you criticize an idea: focus your criticism on the idea not on the person who came up with (including yourself!)

## 2.2 Responsibilities

- **You are a team member first.** As a lab, we can only thrive by relying and counting on each other. Treat everyone in the lab (and anyone related to the lab, including participants, collaborators, mentors) with respect and care. Respect their time, their preferred hours, and their needs. Help them when they ask (within reason), and help build a culture of respect and honesty. Work with care. Measure twice, cut once. Document your workflows. Save and backup all raw data and code (on a minimum of two of these locations: Hipergator, Dropbox, OneDrive). In preparation phase, make sure everything is clearly labeled, and the experimental paradigm captures data as expected. It is best practice to write analysis code on simulated or pilot data as proof of principle and good sanity checking. In the experiment phase, make sure raw data are being regularly backed up. In the analysis phase, make sure difficult-to-reproduce products are also backed up, and that all analyses are reproducible and documented. In the submission phase, all materials should be able to uploaded to OSF, OpenNeuro, or another online repository in preparation for submission.
- **Our goal is research products** Posters, presentations, and publications are the traditional academic products, and you will be expected to produce or contribute to

these as a member of the lab. But we also value contributions of: data sets (documented and described), software packages (and analysis pipelines), and ‘reproducible sandboxes’ (Jupyter Notebooks). These research products are rarely peer-reviewed, but provide invaluable tools for the broader research world and their creation is not taken lightly.

## **3 Personnel**

### **3.1 PI**

### **3.2 PhD Students**

### **3.3 Lab Manager**

### **3.4 Undergraduate Research Assistants (PSY4911)**

### **3.5 General Policies:**

### **3.6 Resources**

## **4 Checklist and Signature Page**