# Instructions for Student Research,
# Undergraduate Neuroscience Program NSCI 2995/3995

**Course Expectations and Goals:**
Undergraduate research is a critical component of a solid undergraduate life science major and in our major it is a central event in your academic experience. The goal of Undergraduate Research is to give students an opportunity to work closely with experienced researchers who will help the student identify and conduct of an original research project. Typically, a student will work a minimum of 3 hours of lab work per credit hour per week (9 hours per week on the research for 3 credits). Many students devote even more time. This pays off as you become more involved in your research project. In the end, you understand your project much better, and you can discuss it with much more depth and confidence in job or school interviews.

**NSCI 2995** can be taken for 1-6 credits. You will need to prepare a Research Proposal under the guidance of a Faculty Research Sponsor (note – students taking 6 credits of NSCI 2995 are also required to give a short Research Talk – see below).

**NSCI 3995** is more advanced research and builds on research at the 2995 level. Students interested in conducting additional research at the 3995 level should discuss their interests with their research mentor.

**Credits:** If you intend to take just **1 credit**, you only need to write a 1-page proposal which summarizes the problem, the hypothesis being tested, and a brief description of the methods used to test the hypothesis. If you intend to take a total of **2 or more credits**, the research proposal must center on a conceptual problem in neuroscience, or in the area of expertise of the Faculty Research Mentor (e.g., Biology, Chemistry, Communication Sciences, Psychological Science).

**The proposal** will include (1) the statement of a problem, (2) presentation of a hypothesis, (3) organization of observations to test that hypothesis, (4) collection of data, and (5) analysis and potential interpretation of those data. This proposal will be reviewed and approved by the Faculty Research Sponsor (the Sponsor will sign the title page of the proposal). The student will then submit a paper copy of the Research Proposal with the signed title page **to the instructor of record** at least 2 days before the end of Add/Drop Period (although late proposals will be allowed as necessary). After the proposal is approved, the instructor of record will prepare a course over-ride, and the student can register. A new proposal is not required for Spring semester if the project is a continuation of a Fall semester project.

**Final Paper:** Students will prepare a paper in standard journal format under the supervision of the research mentor. The length of the paper should reflect the time devoted to the project (either one or two semesters) and should be in the format of a journal in the mentor's field. This is due to the instructor of record by the last day of classes and must have already been approved by the research mentor.

**Research Seminar:** (for students taking a total of 6 credits of NSCI 2995) Neuroscience majors who plan to take six credits of Undergraduate Research should present a short seminar. Typically,

this will be at the Student Research Symposium in the Spring or in the Biology or Psychological Science Departments at a group lab meeting.

**Evaluation:** The instructor of record will record the final grade based on the evaluation of the Faculty Research Mentor, the final paper, and the presentation (if one is given). The grade will be based on the evaluation of the amount of work put into the project by the student and the creative thinking displayed by the student. If a student is continuing across semesters, a grade of SP or UP will be given by the mentor and will be replaced at completion of the research with a letter grade.