

Independent Study - Neuroscience Research Course Instructions (Rev. 07.10.18)

I. Students

1. Provide your mentor: Banner ID, course prefix and number, section number, credit hours, semester.
2. The following courses apply to you:

NEUR 2201 – 2 or 3 credit hours (**NEW** for 2018-2019 catalog year; max. 12 hrs majors; max. 6 hrs minors)

- 2 hrs – NEUR 2201 Section 001
- 3 hrs – NEUR 2201 Section 002

After you have exhausted NEUR 2201, then you may register for more research hours using the following:

PSYC 4312 – 3 credit hours

PSYC 4315 – 3 credit hours* (*this course may be repeated once)

3. See Page 3 for more steps. I will not register you until the entire approval process is complete. **You must know** the deadline for the Course Adjustment Period in any given semester. Click the link to locate the [Academic Calendar](#).

II. Faculty Mentors

1. Log into SharePoint (<https://collab.ecu.edu/sites/hcas/isp-ug/default.aspx>) and select “Submit a new undergraduate program request”. It is also located in the Neuroscience website (www.ecu.edu/neuroscience) under the Faculty menu.
2. Enter the student’s information (Name, Banner ID, “Neuroscience” as the major). If you have two or more students that will use the same course number and carry out the same work, then click the “+” sign and add each student’s information.
3. Look up “Tran, Tuan” and select me as the “Chair or Director”. Do not select your true chair/director in your department – doing so will route the form to the wrong person to review.
4. Provide a course title that is linked in some way to the major sections (Learning Outcomes, Course Requirements, etc.) of the narrative. If there is no link in any way or if the language is vague, then THCAS may reject the proposal and further delay processing of this request. See the **purple text** (Page 2) of how the title is linked to Learning Outcomes.
5. Enter course information (prefix, number, section = “00X”, credit hours, and semester); student supplies all of this.

The screenshot shows the 'Undergraduate Independent Study Application' form for Thomas Harriot College of Arts and Sciences. The form is filled out with the following information:

- Student:** Worthington, Emma Grace
- Banner ID:** B12345678
- Major:** Neuroscience
- Faculty Member:** Tran, Tuan
- Department:** Psychology
- Chair or Director associated with the course prefix:** Tran, Tuan
- Title of proposed course or project:** Basic Research Using a Rodent Model of Alzheimer's Disease
- Course:** PSYC
- Number:** 4312
- Section:** 001
- Number of credits:** 3
- When will this course be taken:** Spring 2018
- Section Type:** Independent Research (selected)

Red circles with numbers 2, 3, 4, and 5 are placed on the left side of the form, with red arrows pointing to the Student, Faculty Member, Title of proposed course or project, and Course fields respectively.

6. Feel free to use this template to copy and modify content suitable for your lab. Please note that the College of Arts and Sciences will review this proposal thoroughly for specific details in these four fields. If the language is vague in any field, then it likely will be rejected and returned to the mentor for revision. **Please note the use of Bloom's Taxonomy in the Learning Outcomes field** (see Page 4 for some examples of low- to high-level verbs to use). Although it is not a requirement, it is suggested that some high-level verbs be used to align with expectations in higher education. For the Plan of Study field, please be reasonable with your expectations of how many credit hours = contact hours (e.g., 1 credit hr = 6 contact hr is **unreasonable** to expect from an undergraduate). You can skip the last section "Please attach a sample bibliography..." if you wish then click "Save and Submit" to submit the form. **Please see Page 3 to understand the workflow.**

Actions | Spelling

Learning Outcomes *

1. Learn chemical mixing, histology, data entry, and data analysis.
2. Learn animal procedures that assess learning **impairments in AD.**
3. Learn cellular/molecular lab techniques that assess brain-related **changes in AD.**
4. Demonstrate an understanding of the research literature specific to **Dr. Tran's research on AD.**
5. **Apply the research findings on AD** by conveying them at lab meetings, class invitations, research conferences, or other scholarly events such as Journal Cafe (<http://www.ecu.edu/neuro/Journal-Cafe.cfm>), Neuroscience Seminar Series (<http://www.ecu.edu/neuro/neuroscience-seminar-series.cfm>), and the Annual Neuroscience Symposium (<http://www.ecu.edu/cs-dhs/neurochapter/>).
6. **Evaluate the research literature on AD** with regards to hypotheses, critiques, and implications.
7. Synthesize optimal methodology and/or standard operating procedures for a given experiment.

Course Requirements *

1. Reliable attendance for lab activities: Reliable attendance is considered being present in at least 90% of scheduled/assigned activities including lab meetings. Some lab work may include evenings and weekends.
2. Learn lab-specific procedures involving cellular, chemical, and animal work.
3. Completion of research assignments. Due to the dynamic nature of scientific research, assignments will be determined at lab meetings.
4. Receive training and certification from the Department of Comparative Medicine (where appropriate).
5. Receive training and certification from the Department of Environmental Health & Safety (where appropriate).

Grading scale and weighting of assessments *

Grading Scale for Total Weighted Score:
A 94-100, A- 90-93, B+ 87-89, B 83-86, B- 80-82, C+ 77-79, C 73-76, C- 70-72, D+ 67-69, D 63-66, D- 60-62, F Below 60

Weighting of Assignments:

1. Attendance: 100 pts x 50% = 50
2. Learn lab procedures: 100 pts x 25% = 25
3. Completion of assignments: 100 pts x 25% = 25

Total Weighted Score = 100

Plan of study, including planned interaction with faculty member *

1. Work in the lab at least 9 hr each week (1 credit hr = 3 contact hr).
2. Student will be supervised by Dr. Tran, graduate student, postdoctoral fellow, or other qualified personnel; Dr. Tran will be consulted on the student's progress in the latter cases.
3. Attend weekly lab meetings to understand current objectives and responsibilities.
4. Dr. Tran will assist with and/or supervise the student's preparation of a poster or paper if the student is attending a conference, symposium, or any scholarly event that requires these products.

Independent Study Course Submission Workflow

Have mentor initiate this well-before the Course Adjustment Period ends for a given semester. Look this up in the Academic Calendar for a given semester.

1. Mentor Submits Independent Study Form

- **Student** provides faculty mentor Banner ID and course info (prefix, number, section, credit hours).
- **Mentor** fills out the form and submits it.

2. Student Receives Form

- **Student** must review it **carefully** before agreeing to this course contract. Any errors in the form may substantially delay its approval in the chain. If there are errors, then notify your mentor to edit and resubmit.
- **Student** must "agree" per the instructions in the SharePoint email.
- **Program Director** receives the form to review.

3. Program Director/Chair Receives Form

- If no errors or concerns, then it will be approved and forwarded to **Associate Dean of Undergraduate Studies**.
- If errors/concerns, IS form is rejected and returned to mentor for revision.

4. Associate Dean and Dean Receives Form

- If no errors or concerns, then mentor and director will receive an email from Associate Dean to move forward with registration.
- **Director** will register student.
- If errors/concerns, IS form is rejected and returned to mentor for revision.

May take several days to weeks depending on THCAS review load!

If approval has moved beyond Director, then the student simply needs to wait.

Bloom's Taxonomy

