

## **SYLLABUS: ANAT 6275**

### **Advanced Studies in Translational Sciences**

#### **COURSE DESCRIPTION:**

ANAT 6275 is designed to provide a semester-long research opportunity to students in a laboratory conducting translational and/or clinical research in order to apply fundamental concepts learned in didactic courses and become versatile with cutting edge technologies. Students are expected to spend 10-15 hours per week in the laboratory. The course director will meet with students in the first two weeks of the course to assist students in finding mentors. The course director must approve rotation mentors and projects prior to students initiating research.

#### **LEARNING OBJECTIVES:**

- 1) Conduct an independent research project in the field of translational sciences and/or clinical research under the mentorship of a faculty member approved by the course director.
- 2) Prepare a scientific PowerPoint presentation describing the research and results obtained.
- 3) Deliver a scientific oral presentation to the course director and other students in the program.
- 4) Write a structured abstract describing the research presented in the oral presentation including references.

#### **CREDIT HOURS: 3**

**PREREQUISITES:** Introductory Biology for Science or non-Science Majors. Enrollment in the GCATS-MATS Program and permission of the Program Director. **Students preparing for the MCAT exam are usually not eligible for this elective.**

**CONTACT TIME/HOURS:** Each rotation will be 12-13 weeks long and will be carried out in the Fall and/or Spring semester. Students are expected to be in the laboratory working with their mentor 10-15 hours per week.

**METHOD OF ASSESSMENT:** The grading method for this course is a LETTER GRADE. A letter grade will be assigned if students have spent the required number of hours in a research laboratory and successfully complete the assignments listed below:

- 1) At the end of a rotation, students will give an oral presentation to the class with 8-10 PowerPoint slides, which will include a brief introduction, the main objective of the research conducted, methods, results, discussion and future questions.
- 2) At the end of each rotation, students will submit a structured abstract no more than 400 words in length that summarizes the research presented in the oral presentation. Structured abstract guidelines can be found at:  
[https://www.nlm.nih.gov/bsd/policy/structured\\_abstracts.html](https://www.nlm.nih.gov/bsd/policy/structured_abstracts.html)
- 3) Student's performance will be evaluated by the mentor using the form included with this syllabus.
- 4) Each student will also evaluate their mentor using the form included with this syllabus.

**FACULTY:** Robert G. Hawley, Ph.D., Course Director, Professor of Anatomy & Cell Biology; Ross Hall 461B; Email: [rghawley@gwu.edu](mailto:rghawley@gwu.edu)

**TEXTBOOK:** None

**READING LIST:** To be determined by the mentor chosen for the rotation.

**CLASS POLICIES:**

Mandatory presence in the mentor's lab 10-15 hours per week for 13 weeks.

Late work: accepted with permission. Penalty may be incurred if unduly late as determined by mentor and course director. Religious Holidays will be accommodated if requested in advance.

[NOTE: for university policies on teaching, see

<http://www.gwu.edu/~acadcmic/Teaching/main.htm>]

**ACADEMIC INTEGRITY**

The course director supports the GW Code of Academic Integrity. It states: "Academic dishonesty is defined as cheating of any kind, including misrepresenting one's own work, taking credit for the work of others without crediting them and without appropriate authorization, and the fabrication of information." For the remainder of the code, see:

<http://www.gwu.edu/~ntegrity/code.html>.

**DISABILITY SUPPORT SERVICES (DSS)**

Any student who may need an accommodation based on the potential impact of a disability should contact the Disability Support Services office at 202-994-8250 in the Marvin Center, Suite 242, to establish eligibility and to coordinate reasonable accommodations. For additional information please refer to: <http://gwired.gwu.edu/dss/>

**UNIVERSITY COUNSELING CENTER (UCC):** 202-994-5300

The University Counseling Center (UCC) offers 24/7 assistance and referral to address students' personal, social, career, and study skills problems.

Services for students include: crisis and emergency mental health consultations, confidential assessments, counseling services (individual and small group), and referrals.

<http://gwired.gwu.edu/counsel/CounselingServices/AcademicSupportServices>

**SECURITY:**

In the case of an emergency, if at all possible, students should shelter in place (**see below**). If the building that the lab you are working in is affected, follow evacuation procedures for the building. After evacuation, seek shelter at a predetermined rendezvous location to be determined by your research mentor.

**Emergency Preparedness and Response at The George Washington University**

To Report an Emergency or Suspicious Activity call the University Police Department at **202-994-6111** (Foggy Bottom) or **202-242-6111** (Mount Vernon). If you are working at an off-campus location, you are responsible for determining how to contact security at that site.

**Shelter in Place:** Although it is unlikely that we will ever need to shelter in place, it is helpful to know what to do just in case. No matter where you are, the basic steps of shelter in place generally remain the same.

- \*If you are inside, stay where you are unless the building you are in is affected. If it is affected, you should evacuate. If you are outdoors, proceed into the closest building or follow instructions from emergency personnel on the scene.
- \* Locate an interior room to shelter inside. If possible, it should be above ground level and have the fewest number of windows. If sheltering in a room with windows, move away from the windows. If there is a large group of people inside a particular building, several rooms may be necessary.
- \* Shut and lock all windows and close exterior doors.
- \* Turn off air conditioners, heaters, and fans.
- \* Make a list of the people with you and ask someone to call the list in to UPD so they know where you are sheltering. If only students are present, one of the students should call in the list.
- \* Await further instructions. If possible, visit Campus Advisories for incident updates (<http://CampusAdvisories.gwu.edu>) or call the GW Information Line 202-994-5050.
- \* Make yourself comfortable and look after one other. You will get word as soon as it is safe to come out.

### **Evacuation**

An evacuation will be considered if the building you are in is affected. Always evacuate if the fire alarm sounds. In the event of an evacuation, gather your personal belongings quickly (purse, keys, GWorld card, etc.) and proceed to the nearest exit. Do not use an elevator. Once you have evacuated the building, proceed to your primary rendezvous location.

### **Alert DC**

Alert DC provides free notification by e-mail or text message during an emergency. Visit **Campus Advisories** for a link and instructions on how to sign up for alerts pertaining to GW.

### **Emergency Information**

Additional emergency information may be obtained by visiting the Campus Advisories webpage (<http://CampusAdvisories.gwu.edu>) or calling the GW Information Line at **202-994-5050**.

# ANAT 6275 (Advanced Studies in Translational Sciences)

## MENTOR'S GCATS-MATS STUDENT EVALUATION FORM

**Mentor Name:** \_\_\_\_\_ **Date** \_\_\_\_\_

**Student Name:** \_\_\_\_\_ **Semester/Year** \_\_\_\_\_

**Recommended Letter GRADE\*** \_\_\_\_\_

\* The final grade will be assigned by the Course Director with input from your mentor upon successful completion of the laboratory report and the in class oral presentation which will be given during the scheduled PowerPoint presentation session at the end of the course. Failure to complete these assignments will result in a grade of F.

This form will serve as a written evaluation for the performance of the graduate student indicated above. It is to be filled out by the person who accepted responsibility for setting the objectives of the rotation and directed the training of the student and who was approved by the course director.

Please assess the performance of the student. Circle a number between **1** (excellent)- **6** (failure) for each item below.

<b>I. DEPENDABILITY AND COMMITMENT:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>II. EFFORT IN THE LABORATORY</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>III. FUND OF KNOWLEDGE:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>IV. LABORATORY SKILLS:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>V. PROBLEM SOLVING &amp; THOUGHT PROCESSES:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>VI. ABILITY TO LEARN NEW TECHNIQUES</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>VII. RESEARCH ABILITIES:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>VIII. INTERPERSONAL SKILLS (teamwork)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>IX. ETHICAL LABORATORY PRACTICES</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>X. ADMINISTRATIVE QUALITIES (time management, efficiency, follow-through, adequate laboratory records, etc ...)</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>

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**XI. SPECIFIC COMMENTS:**

Did the student spend adequate time to accomplish research?

Student Strengths:

Student Weaknesses (areas for the student to work on):

**Circle the word that best describes your rating of the student for this rotation:**

**Excellent    Very Good    Good    Average    Poor**

Please sign and date this form.

**Faculty Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Course Director Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Note: Please email or send the signed evaluation form to Dr. Robert Hawley ([rghawley@gwu.edu](mailto:rghawley@gwu.edu)) Ross Hall 461B before the end of the research period. The course director cannot submit the student's grade without receiving the signed evaluation form from the mentor.

**Form Revised: July 29, 2019**