

GS21 1152 Scientific Writing

Course Directors: Alexandre Reuben; Natalie Sirisaengtaksin; Kehinde Ogunseye

Tuesday/Thursday 3:30PM – 5:00 PM

GSBS Large Classroom S3.8371

Two semester credit hours

Grading System: Pass/Fail

- 1. Prerequisites:** Students should have affiliated with a faculty advisor and developed an idea for a specific thesis project, including specific aims. Usually, this means they are in the second year of training in their current degree program. Registration requires the permission of the course director.

This course meets the GSBS Writing Course Requirement for all PhD students.

- 2. Mode of Delivery:** All lectures and office hours sessions for this class will be in-person with no remote virtual option unless otherwise specified. Students who are not able to attend an in-person session due to health reasons should notify the course directors prior to class.
- 3. Weekly Lectures:** Required sessions will begin on August 26. Time for all lectures is 3:30 – 5:00 PM. See Schedule below for more details. Slides and updated course materials will be posted on the course site in Canvas: <https://uth.edu/canvas>.
- 4. Small group meetings:** These required sessions will be held weekly, starting September 4, with a faculty facilitator who is matched to the students' general area of research. Sessions are scheduled for Thursdays at 3:30 PM but can be held at a different time agreed to by the facilitator and all the students in the group. The delivery mode of these sessions will also be determined by the facilitator, who will consult with students in the group regarding the most appropriate mode.
- 5. Course Description:** The objectives of the course are to teach critical thinking and the fundamentals of proposal writing that will help students write candidacy exam proposals, fellowship applications, grants, papers, meeting abstracts, and theses/dissertations. Students will develop a research plan and write a proposal following the format used for NIH fellowships. Students will also learn to edit and critique their fellow students' proposals, which will help prepare the students for writing and editing their candidacy exam proposals. Weekly meetings will consist of lectures from faculty/experts addressing how to organize ideas, compose grant proposal sections, and revise/polish writing. In addition, students will meet weekly with faculty in small groups to critique/discuss writing assignments during which they will be given feedback on their writing by faculty and fellow students.

6. Grading: Pass/Fail

A passing grade is determined by these percentages:

Attendance (25%)

Participation (25%)

Proposal (50%)

A passing grade requires that the student:

- a.** Students are expected to attend all lectures and small group sessions, but each may miss up to 2 classes during the semester for any reason (illness, conflicts due to conferences, etc.) Students must email the Co-Directors prior to a class absence to indicate they will not attend.

If a student misses more than 2 classes, then their score for the entire Attendance grade will be 0. (Attendance)

- b. Complete all assignments to the satisfaction of both the course instructor and group facilitator. (Proposal)
- c. Sign up and participate in productive solo writing, one-on-one feedback, peer feedback, or example proposal reviews during each Office Hours session. (Participation)
- d. Participate satisfactorily in each small group session as determined by the faculty facilitator. (Participation)
- e. Submit a satisfactory and complete specific aims page **by October 10** and a complete research proposal **by December 9** as instructed. **See “Final Research Proposal Format Guidelines” on Canvas for details of formatting and expected content of your proposal.** (Proposal)

Grade Breakdown:

- f. Attendance: <10/12 lectures = 0%; ≥10/12 lectures = 25%
- g. Participation: Satisfactory participation in small group sessions and Mock Study Section, as determined by your small group leaders = 15%; Office Hours & Participation/Submission of Example Proposal Comments = 10%
- h. Proposal: Submission of panel questions = 5%; Specific Aim Page Submission = 15%; Final Proposal submission = 30%

7. Use of ChatGPT and other large language model (LLM) AI sources: As this course is specifically intended to develop your research proposal writing skills, the use of LLM online aids is prohibited for producing the text used in your written assignments submitted in this class. The final proposals, including specific aims pages, will be submitted for AI detection by Turnitin.

8. Plagiarism and Originality: It is vital that *all materials* you submit during this course are from your own original writing. Plagiarism is the act of presenting the ideas or words of others as your own and is a serious form of academic misconduct and violation of the GSBS code of conduct. *Any student determined to have purposely committed plagiarism will be given a failing grade and may be subject to further disciplinary action.*

Please note that this means no part of the proposal, including your specific aims, can be taken from the writing of others. This includes your advisor's grant proposals.

GS21 1152 GSBS Class Schedule - Fall 2025

Tuesday Lectures: 3:30 – 5:00 PM, **Room** BSRB S3.8371. All lectures are intended to be 1 to 1.5 hrs in length

Thursday Small Group: Scheduled time is 3:30 – 5:00 PM Thursdays starting September 4. Faculty facilitators and their group members may decide on a different time to meet if all agree. Meeting locations will be determined by the faculty facilitator. Confirmed facilitators: Lawrence Kwong (Cancer Biology), Chunru Lin (Cancer Biology), Haoqiang Ying (Cancer Biology), Kartik Venkatachalam (Neuroscience), Ziyi Li (Quantitative Sciences), Robert Orłowski (Cancer Biology), Han Xu (Quantitative Sciences and Genetics & Epigenetics), Kai Sun (Molecular and Translational Biology), and Hind Rafei (Immunology).

Please note that the schedule for small group sessions below are suggestions. Each faculty facilitator will set the pace and topic for each week.

Schedule

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| Aug 26 | No class |
| Aug 28 | Lecture: Class Organization/Expectations (Reuben)/Why Write a Research Proposal, Proposal structure (Herzog) |
| Sept 2 | Lecture: Hypotheses (Mikhail Kolonin) |
| Sept 4 | Small group: Topics/Hypothesis presented |
| Sept 9 | Lecture: Specific Aims (Angela Ting) |
| Sept 11 | Small group: Specific Aims Presented |
| Sept 16 | Office Hours (Immunology and Cancer Biology; TBD) |
| Sept 18 | Small group: Specific Aims Critique |
| Sept 23 | Lecture: How to Write a Significance/Innovation Section (Scott Evans) |
| Sept 25 | Lecture: How to Write a Research Plan (Callie Kwartler) |
| Sept 30 | Small group: Specific Aims Page Critique 2 |
| Oct 2 | Small group: Specific Aims Page Critique 2 |
| Oct 3 | QUESTIONS FOR FACULTY PANEL DUE - upload to Canvas by 11:59 PM |
| Oct 7 | Class Discussion: Faculty Panel Q&A (TBD) |
| Oct 9 | Small group: Significance/Innovation Critique |
| Oct 10 | SPECIFIC AIMS PAGE DUE– upload to Canvas by 11:59 PM |
| Oct 14 | Lecture: Figures/Graphical Abstracts (Kehinde Ogunseye) |
| Oct 16 | Small group: Research Plan Critique 1 |
| Oct 21 | Lecture: Abstract Writing (Erica Goodoff)/Grant review process, study sections and expectations for mock study section (Reuben) |
| Oct 23 | Small group: Research Plan Critique 2 |
| Oct 28 | Office hours (Neuroscience, Genetics & Epigenetics, and Molecular & Translational Biology; TBD) |
| Oct 30 | Small group: Final Proposal Critique |
| Nov 4 | Recap Lecture: The Anatomy of a Research Proposal; Open class discussion/Q & A (Callie Kwartler) |
| Nov 6 | Small group: Final Proposal Critique |

Nov 7 **STUDY SECTION PROPOSAL DUE – upload to Canvas by 11:59 PM**

Nov 11 **Office hours: (Quantitative Sciences and Therapeutics & Pharmacology; TBD)**

Nov 13 **Small group:** Determined by facilitators

Nov 18 **Small group:** Mock study sections

Nov 20 **Small group:** Mock study sections

Nov 25 Thanksgiving Week – no class

Nov 27 Thanksgiving Week – no class

Dec 2 – No class – Work on your final proposals

Dec 9 **FINAL PROPOSAL DUE (11:59 PM) – upload as a single PDF file on the course Canvas site**