



Course title:	Grant Writing for Extramural Research Funding
Course #/term:	SSW 833-001 Winter 2023
Time and place:	Wednesday, 9am,
Credit hours:	3
Prerequisites:	permission of instructor
Instructor:	Matthew Smith
Pronouns:	[He, Him, His]
Contact info:	Email: mattjsmi@umich.edu Phone: 734-764-9322 You may expect a response within 24 hours
Office:	3796
Office hours:	by appointment

1. Course Statement

Grant writing is the primary mechanism to obtain extramural funding for scientists who plan to pursue a career as an independently-funded principal investigator. Whether that extramural funding is through the National Institute of Health, the National Science Foundation, or foundations; the ability to clearly and concisely articulate your program of research and funding needs is a critical skill to succeed as an academic researcher. However, few PhD programs provide formal instruction on the use of successful grant writing techniques.

This course focuses on helping you develop advanced writing skills and knowledge of the grant-writing process, particularly as it pertains to NIH-style grant mechanisms. Though these skills will be applicable to all extramural grant writing. The course will cover the following topics:

1. Successful writing styles, including: a) writing readable sentences; and b) creating coherent paragraphs
2. Successful strategies for writing a specific aims page
3. Successful strategies for writing significance, innovation, and approach sections
4. Successful strategies for writing preliminary data
5. Successful strategies for writing a training plan
6. Reviewing the NIH review criteria and grant scoring rubric
7. Reviewing the preparation of all supporting documents (e.g., biosketch).
8. Budget development
9. Learning to provide constructive peer review of grant applications

<https://researchtraining.nih.gov/programs/fellowships/F31>

<https://beta.nsf.gov/funding/opportunities/nsf-graduate-research-fellowship-program-grfp>

A. Course Description:

This course will train doctoral students on successful technical grant writing strategies that they can implement to prepare a dissertation fellowship grant application. Students will review existing grants and prepare their own dissertation fellowship grant application. Students can expect to: 1) write their own grants; 2) review lecture materials around dissecting existing grants; and 3) work in groups to review each other's writing to generate feedback to support the development of their own grant.

B. Course Content:

This course will focus on reviewing publicly available grant information from the National Institute of Health. In addition, students will read a collection of grant applications procured by the course instructor. Although this course will emphasize NIH/NSF grant applications, students can work with the course instructor to individualize the main assignment (e.g., write a Robert Wood Johnson dissertation fellowship application). Please inform the instructor of the type of grant and provide a link to the grant application guidelines.

C. Course Objectives and Competencies:

Upon completion of this course, students will be able to:

1. Use the 5 principles of writing readable sentences.
2. Identify how to find and search for grant announcements.
3. Understand how the organization of dissertation fellowships.
4. Understand how to use grant review criteria to inform your grant writing strategies.
5. Draft a full grant dissertation fellowship grant
6. Identify grant mechanisms that target improving the disparities among grant awardees
7. Identify grant mechanisms that facilitate the training of underrepresented minorities

D. Course Design:

This course will employ a number of pedagogical strategies to promote knowledge and skill development, such as reading assignments, group review and feedback, didactic presentations of theory/models/procedures.

E. Curricular Themes:

1. Grant Organization and Design. We will address how to organize/design one's grant to meet the standard of most dissertation fellowships.
2. Principles for Writing Readable Sentences. We will learn and apply the five principles for writing readable sentences through grant dissection.
3. Understanding Review Criteria. We will learn how grant reviewers view your application and the power phrases they look for to help score your grant.
4. Importance of Group Feedback. We will learn how reading and providing feedback on other grants (in a group format) will be critical to developing effective grant writing skills.

F. Relationship to Social Work Values and Ethics:

Students will learn about the ethics of grant writing adapted from the American Grant Writer's Association, NIH, and the Chronicle of Higher Education.

G. Intensive focus on PODS:

This course integrates Privilege, Oppression, Diversity and Social Justice (PODS) content and skills with a special emphasis on the identification on grant mechanisms that promote social justice, illuminate injustices and are consistent with scientific and professional knowledge. Through the use of readings and class discussions, this course will support students to learn about Institutes at NIH that facilitate Minority and Health Disparities Research and to recognize and reduce mechanisms that oppress grant submissions from diverse scientists. Overall students will strengthen their critical consciousness, self-knowledge and self-awareness to facilitate PODS learning.

2. Class Requirements

a. Text and class materials

All reading materials will be available through CANVAS.

b. Class schedule

DATE	SEMINAR LECTURES/TOPICS	READINGS & ASSIGNMENTS
1/4/23 Session 1	Lecture: Class Introduction Dissertation Fellowships (eg NIH F31) Writing Style, Writing Readable Sentences, Creating Coherent Paragraphs,	Recommended Read: A Practical Guide to Writing a Ruth L. Kirschstein NRSA Grant (CANVAS)
1/11/23 Session 2	Mini-Lectures: Grant Review Criteria; Deconstruct Dissertation Research Experience; Deconstruct Training Goals; Deconstruct Activities; Mentorship Engagement Group Activities: Read & Discuss: Cornacchio's Dissertation & Research Experience; Training Goals; Activities sections	Required Read: Dissertation & Research Experience (Cornacchio)

<p>1/18/23 Session 3</p>	<p>Group Activities (60 min): Read and Give Feedback on <u>your drafts of Dissertation & Research Experience</u>;</p> <p>Read and Discuss Glass <u>or</u> Mowbray Aims</p> <p>Lecture: Specific Aims (Cornacchio vs. Goodrum)</p>	<p>Required Read: Specific Aims for Cornacchio & Goodrum</p>
<p>1/25/23 Session 4</p>	<p>Group Activities: Read and Give Feedback on your <u>Training Goals</u> Draft;</p> <p>Lecture: Significance (part 1)</p>	<p>Due: Draft of Dissertation & Research Experience</p> <p>Required Read: Significance for Cornacchio</p>
<p>2/1/23 Session 5</p>	<p>Group Activity: Read and Give Feedback on <u>Aims</u></p> <p>Lecture: Significance (part 2)</p>	<p>Due: Draft of Training Goals</p> <p>Required Read: Significance for Goodrum</p>
<p>2/8/23 Session 6</p>	<p>Group Activity: Read and Give Feedback on <u>Aims</u></p> <p>Lecture: Approach (Part 1)</p>	<p>Required Read: Approach for Cornacchio</p> <p>Due: Draft of Specific Aims (by midnight)</p>
<p>2/15/23 Session 7</p>	<p>Group Activity: Read and Give Feedback on Significance</p> <p>Lecture: Approach (Part 2)</p>	<p>Required Read: Approach for Goodrum</p>
<p>2/22/23 Session 8</p>	<p>Lecture: Biosketch</p> <p>Group Activities: Read and Give Feedback on Approach</p> <p>Jigsaw Discussion: NIH's Mission to Establish NIMHD to facilitate disparity research</p>	<p>Read: Sample Biosketches (Cornacchio, Wojtalik)</p> <p>Due: Draft of Significance</p>

	<p>https://nimhd.nih.gov/about/overview/ (and subsections)</p> <p>https://dpcpsi.nih.gov/sgmro (Pages 1-13 of Strategic Plan)</p> <p>Barriers/Facilitators/Study Design to address needs of underrepresented minority participants.</p> <p>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3935672/</p>	
3/1/23	Spring Break, no class	
3/8/23 Session 9	<p>Grant Writing Ethics: On Canvas</p> <p>Lecture: Small Pieces (e.g., Protection of HS; Women & Minorities; Budget)</p> <p>Lecture: Respective Contributions; Training in Responsible Conduct of Research; Sponsor Statements</p>	
3/15/23 Session 10	<p>New Groups</p> <p>Group Activity: Read and Discuss Background and Training Plan</p> <p>Individual meetings with Dr. Smith</p>	Due: Draft of Approach
3/22/23 Session 11	<p>New Groups</p> <p>Group Activity: Read and Discuss Aims and Significance</p> <p>Individual meetings with Dr. Smith</p>	
3/29/23 Session 12	<p>New Groups</p> <p>Group Activity: Read and Discuss Approach</p> <p>Individual meetings with Dr. Smith</p>	
4/5/23 Session 13	<p>Wrap Up</p> <p>Jigsaw Discussion: Disparities in receiving NIH Funding: https://diversity.nih.gov/building-evidence/racial-disparities-nih-funding</p>	

	https://blogs.scientificamerican.com/voices/racial-and-ethnic-disparities-in-nih-funding/ https://www.sciencemag.org/news/2019/03/men-get-larger-first-nih-grants-news-all-bad-female-scientists	
4/12/23 Session 14	Budgets Future Grant Writing How do I obtain funding after I graduate?	
4/19/21	Final Assignment Due by 7:59am	Due: Final Assignment

c. Assignments

The primary assignment is to write a dissertation fellowship award consistent with the guidelines of the NIH F31 dissertation fellowship granting mechanism.

<https://researchtraining.nih.gov/programs/fellowships/F31>

Assignment	Email Assignment to: mattjsmi@umich.edu	Percent of overall grade
Draft of Dissertation & Research Experience	by 11:59am on 1/25/23	10%
Draft of Training Goals	by 11:59am on 2/1/23	10%
Draft of Specific Aims	by 11:59am on 2/8/23	10%
Draft of Significance	by 11:59am on 2/22/23	10%
Draft of Approach	by 11:59am on 3/15/23	10%
Final Grant Assignment	by 7:59am on 4/19/21	40%

d. Late Assignments -10% for each week it is late; extensions can be granted with appropriate notice and justification

e. Attendance and class participation

Class participation is the final 10% of the grade.

5% by attendance:

5% if no missed classes; 4% if 1 missed class; 3% if 2 missed classes;

2% if 3 missed classes; 1% if 4 missed classes; 0% if 5 or more missed

5% by group contribution (group members will blindly rate one another)

f. Grading

Grading will be determined by applying the student's ability to integrate the 4 principles for writing readable sentences into their narrative as well as their ability to clearly organize and articulate their grant proposal.

A+ 100-98	B+ 90-88	C+ 80-78	D+ 70-68	F 60 or less
A 97-94	B 87-84	C 77-74	D 67-64	
A- 93-91	B- 83-81	C- 73-71	D- 63-61	

Additional School and University policies, information and resources are available here: <https://ssw.umich.edu/standard-policies-information-resources>. They include:

- *Safety and emergency preparedness*
- *Mental health and well-being*
- *Teaching evaluations*
- *Proper use of names and pronouns*
- *Accommodations for students with disabilities*
- *Religious/spiritual observances*
- *Military deployment*
- *Writing skills and expectations*
- *Academic integrity and plagiarism*