

Scientific Writing and Hypothesis Testing

MBIO 623-01-4228

Fall 2022

Time: Monday 2-4 PM

Place: 601 CTR

2 hour lecture/interactive discussion sessions

The course will involve didactic lectures, student presentations, in class exercises, and discussion that will be integrated into the 2 hour class period. Students will be graded on their performance in course participation and attendance.

Course Description: This course will teach students writing and presentation skills necessary to compete successfully for grant funding, and more generally to succeed as a scientist. Topics covered in this course include how to write Abstract, Specific aims, Significance and Approach sections, and how to prepare an effective biosketch. Didactic lectures on these topics will be combined with in class presentations by students.

<u>Date</u>	<u>Faculty</u>	<u>Session Title and in class assignment</u>
8/22	Salter	Lecture: Course Overview-Introduction to Grants and Proposal Writing In class Assignment: Learn to use NIH RePORT
8/29	Salter	Lecture: Writing Project Summary and Specific Aims In class Assignment: Duke Graduate School Scientific Writing Resource <u>Lesson 1</u>
9/5		LABOR DAY
9/12	Salter	Lecture: Writing Significance and Innovation sections, Preliminary Data In class Assignment: Duke Graduate School Scientific Writing Resource <u>Lesson 2</u>
9/19	Salter	Activity: Student Presentations of Specific Aims
9/26	Salter	Lecture: The Approach section; F grant applications In class Assignment: Duke Graduate School Scientific Writing Resource <u>Lesson 3</u>
10/3		FALL BREAK
10/10	Kirpich	Lecture: Biosketch preparation, environment and resources description
10/17	Salter	Lecture: Overview of review process at CSR-NIH

10/24 Salter/**Activity**: Mock Study Section
Kosiewicz/
Egilmez

Out of class Assignments

<u>Date assigned</u>	<u>Date due</u>	<u>Description</u>	<u>Faculty</u>
8/22	8/29	Submit Research Questionnaire	Salter
8/29	9/12	Prepare written Abstract	Salter
9/12	9/19	Prepare Written Specific Aims	Salter
10/10	10/17	Prepare Written Biosketch	Kirpich
10/17	10/24	Prepare to participate in mock study section	

Learning Objectives

Upon completion of the course, the student will be able to describe how grant proposals are organized, written, and reviewed. Students will develop scientific writing skills applicable to grant proposal submission, and receive feedback on written sections of proposals that they have submitted as class assignments.

Course Director

Russell Salter, Ph.D., Department of Microbiology and Immunology, room 314, A Tower.
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Participating Faculty

Nejat Egilmez, PhD, Department of Microbiology and Immunology
Irina Kirpich, PhD, Department of Microbiology and Immunology
Michele Kosiewicz, PhD, Department of Microbiology and Immunology

Online Material

https://grants.nih.gov/grants/grant_tips.htm

Duke Graduate School Scientific Writing Resource <https://sites.duke.edu/scientificwriting/>

Reference Material

The CRAFT of Scientific Writing: 3rd Edition, by Michael Alley, Springer (1996)
The Elements of Style: 4th Edition, by Strunk and White, Longman (1999)

Class Cancellations

An assignment will be placed on the Blackboard site for this course in the event that a class is cancelled. Completion of this assignment by the given due date will count toward class attendance for the day class was cancelled.

Grading

The course will be P/F. Students are expected to attend class meetings and actively participate in class presentations and during discussions.

Policy on Instructional Modifications

"The University of Louisville is committed to providing access to programs and services for qualified students with disabilities. If you are a student with a disability and require accommodation to participate and complete requirements for this class, notify me immediately and contact the Disability Resource Center (Stevenson Hall, 852-6938) for verification of eligibility and determination of specific accommodations."

Title IX/Clery Act Notification

Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain **confidential** support from the PEACC Program (852-2663), Counseling Center (852-6585), and Campus Health Services (852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (852-5787) or University of Louisville Police (852-6111).

Disclosure to **University faculty or instructors** of sexual misconduct, domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is **not confidential** under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University's Title IX officer.

For more information, see the Sexual Misconduct Resource Guide (<http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure>).