

**Course Title: NIH Grant Writing for Graduate Students**

**Course Co-Directors:** Robert J. Milner, PhD, University of Massachusetts Chan Medical School  
Joan M. Lakoski, PhD, West Virginia Clinical and Translational Science Institute, WVU

**Course Prerequisites:** None

**Grading Policy:** Pass/Fail

**Course Format:** Virtual/ Zoom

**Course Description**

The goal of this course is to provide students with the skills and knowledge necessary to write grants to support their research. Grantsmanship not only requires strong scientific writing skills but also a keen understanding of the policies, review processes, and administrative aspects that are involved in grant writing. This course will introduce essential components of grant writing, including identifying and targeting funding mechanisms, understanding the review process, writing individual grant sections, and understanding administrative policies.

The course format will include didactic presentations, interactive activities, and small group discussions. Students may use this course to prepare a fellowship application that can be submitted to the National Institutes of Health or another funding agency.

**Learning Objectives**

By the end of the course, students should have gained the following knowledge:

- Where to find grant opportunities and how to select the opportunities that are most relevant
- How NIH grants are reviewed and scored and how to structure grant applications around these criteria
- Insight into the aspects that make strong specific aims pages and research plans
- Understanding common mistakes that may limit the success of a research grant application

By the end of this course, students should be able to:

- Write a compelling specific aims page that clearly captures the goals of the grant
- Create a specific research plan that includes a well-designed hypothesis, rationale, specific objective, and short- and long-range research goals
- Develop a research plan that includes the three sections of Significance, Innovation and Approach

**NOTE:** Scholars will be writing a complete grant during this course. This should be a grant that scholars have a reasonable opportunity to submit for funding; this cannot be a grant that is currently under review or is already funded. **Submitting a grant to a funding agency is not a requirement of this course.**

**Course Schedule and Topics**

Tentative Schedule: Wednesdays, 9–11 am

**TBD: Session 1. Working with MSK Grants and Contracts**

- Introductions
- Working with the GSK Grants Manager

- eGrants
- Working with the Fund Manager
- Activating and Terminating Awards

#### **April 23: Session 2. Introduction to NIH**

- Introductions
- Presentation:
  - Overview of NIH: organization, grant types
  - Application & review process
  - Planning an application
  - What makes a good fellowship proposal?
- Closing discussion & questions

#### **April 30: Session 3. Anatomy of An Application**

- Presentation: Anatomy of a Fellowship Application
- Mock Study Section

#### **May 14: Session 4. Effective Specific Aims**

- Presentation: Effective Specific Aims
- Interactive Activity: Writing Specific Aims
- Assignment: submit draft of specific aims for review at next session

#### **May 28: Session 5. The Candidate Section**

- Presentation: Candidate Section, Biosketch, Reference Letters
- Small groups: Review of Specific Aims
- Assignment: submit draft of candidate section for review at next session

#### **June 11: Session 6. The Research Training Plan**

- Presentation: Research Training Plan Section
- Small groups: Review of Candidate Sections
- Assignment: submit draft of research plan for review at next session

#### **June 25: Session 7. Commitment to the Candidate**

- Presentation: Commitment to the Candidate Section
- Small groups: Review of Research Plans
- Closing discussion & questions

### **Methods for Assessing Student Achievement**

Every student must write the relevant parts of the grant application.

#### **Basis for Grade Determination**

Students will receive a passing grade if they:

- Submit their assignments on time
- Attend all class sessions
- Provide oral and written feedback on the grants of other students

#### **Course Attendance and Participation Policy**

Participation in all sessions is mandatory. However, all didactic lectures will be recorded.

If a student misses a session for a personal emergency, they must watch the recorded session on their own time prior to the next class.

### **Academic Integrity Policy**

Each student in this course is expected to abide by the Gerstner Sloan Kettering Policy of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work.

Penalty for violation of this Code can also be extended to include failure of the course and Graduate School disciplinary action.

### **Course Evaluation**

Students will be asked to complete an optional survey in order to evaluate the effectiveness of the class. The survey will ask students to provide feedback on the course structure, time commitment, and effectiveness as well as the performance of the course instructors.