

**SPLH 861 Seminar in Research Methodology in Speech Pathology and Audiology:
Grant Writing (3 credits)
Spring 2011 Syllabus**

Class Meetings: Tuesdays, 2:30-5:00, Dole 1052
Class Instructor: Holly L. Storkel; hstorkel@ku.edu; 864-0497; Dole 3021
Office Hours: By appointment

Course Description

Grant funding is one critical indicator that research is important, programmatic, and has peer acceptance. Obtaining funding is often a critical step in launching a successful research career. This seminar on grant writing will cover how to identify federal grant opportunities, how to craft a successful grant proposal, and how grants are reviewed. Students will identify funding agencies and mechanisms that are appropriate to their research agenda and career stage. Didactic sessions will provide an overview of the components of an NIH research grant (i.e., biosketch, resources, abstract, specific aims, research strategy, budget) and will detail characteristics of fundable proposals on a component-by-component basis. Students will draft their own research grant proposals, which will be critiqued in a mock review session using the NIH format for grant reviews. Given the emphasis on drafting a grant proposal, students should be at a point in their doctoral studies where they are ready to propose or conduct an independent research study (e.g., dissertation, pre-dissertation project) that could serve as the foundation for their grant proposal. Although the focus will be on NIH research grants, additional sections and review criteria related to NIH fellowship and career development awards also will be reviewed, including examples of each type of grant application.

Course Objectives

At the end of this course it is anticipated that students will be able to demonstrate knowledge and skills in the following areas:

1. Federal funding agencies and grant mechanisms: Although this seminar focuses primarily on NIH funding for dissertation projects, participants will become familiar with the other federal funding agencies as well as other funding mechanisms within NIH so that they can select appropriate agencies and mechanisms for both current and future research projects;
2. Components of an NIH grant: Students will understand the specific requirements of each mandatory component of an NIH grant application;
3. Characteristics of a successful grant application: Students will learn the key characteristics of a successful grant application on a component-by-component basis.
4. Writing a successful grant application: Students will write an NIH-style grant application following the current NIH instructions and incorporating the characteristics of a successful grant application.
5. Grant review process: Students will learn NIH review and study section procedures (e.g., scoring criteria; grant review templates) and will observe their grants being reviewed in this format.
6. Post-review issues: Students will learn how to interpret and respond to an NIH-style summary statement.

Course Materials

All course materials will be provided as e-mail attachments. These will typically consist of links to websites and hand-outs for class meetings. The majority of time outside of class will be spent crafting a grant application, rather than reading articles, book chapters, etc. Note that several former students and current faculty have generously offered to make their successful grant applications (F31, R03, K23) available to students in this class. All of these applications were written and awarded prior to the change in page-limits, review criteria, and scoring system. Thus, there will be differences between these model applications and the current instructions and criteria reviewed in class. Also, these grant applications are **STRICTLY CONFIDENTIAL** and should not be shared within anyone outside of this course. Failure to adhere to this confidentiality agreement will constitute grounds for academic misconduct.

Requirements

1. *Attendance (every class)*

Because of the recent changes to NIH scoring and application formats, there are no background readings for each topic. Thus, in-class time will be spent providing this critical background through lecture and discussion. For this reason, class attendance is crucial. If you must miss class, you are required to e-mail the instructor and provide documentation of the need to miss class. Excused absences will not affect your final grade in the course. Unexcused absences will affect your final grade in the course in the following manner: 1 unexcused absence = no change in grade; 2 unexcused absences = reduction in grade by "1 step" (e.g., A becomes an A-); 3 unexcused absences = reduction in grade by "2 steps" (e.g., A becomes a B+); 4 unexcused absences = reduction in grade by "3 steps" (e.g., A becomes a B); 5 unexcused absences = reduction in grade by 4 steps (e.g., A becomes a B-); 6+ unexcused absences (i.e., missing 50% or more of class meetings) = F.

2. *Selection of agency and mechanism (due Feb 1)*

Provide a ½ page to 1-page description of the funding agency and grant mechanism you are targeting for your application. Explain why you selected this particular agency and mechanism (e.g., justification of how your project is well suited to this particular agency/mechanism and/or why this agency/mechanism is more appropriate than others). Provide the program officer's name and contact information along with a list of any questions you have about your eligibility/suitability for the funding agency and/or mechanism. **DO NOT CONTACT THE PROGRAM OFFICER YET.** Some of your questions may be addressed by class discussion. Indicate alternative agencies/mechanisms that you might pursue should you receive a negative outcome from your selected agency/mechanism. This will be graded credit (A)/no credit (C).

3. *Grant outline (due Feb 15)*

Provide a 1- to 3-page outline of your grant that specifies (1) what is known in your topic area (i.e., critical findings/theories at the foundation of your research); (2) the problem or research question you are addressing; (3) the importance of addressing that problem or research question; (4) the basic methods you will use (think in terms of independent variables, dependent variables, basic description of task, and basic analysis approach); (5) predictions/likely outcomes; (6) new information gained as a result of this research. This will be graded credit (A)/no credit (C).

4. *Grant outline discussion (due Feb 15)*

Be prepared to share with the class a 5-minute summary of your grant outline for preliminary feedback. The 5-minute time limit will be strictly enforced so be sure to practice and time your presentation prior to class. This will be graded credit (A)/no credit (C).

5. *Draft of grant sections*

You will prepare these drafts following NIH instructions for R03 grant applications. Examples will be provided in class as these sections are reviewed. Each draft will be graded credit (A)/no credit (C).

- a. *Abstract & specific aims draft (due Feb 22)*
- b. *Significance & innovation draft (due March 1)*
- c. *Approach draft (due March 15)*
- d. *Biosketch & Resources draft (due April 5)*

6. *Final grant and response to review*

Your grant application will be reviewed by three fellow students, outside faculty, and/or the course instructor. You will receive a written critique from each reviewer along with scores based on the NIH scoring system.

- a. *Complete grant application (due April 19)*
Your complete grant application will include your abstract, specific aims, research strategy (significance, innovation, approach), biosketch, and resources. Follow NIH R03 guidelines for font, margin, and page specification requirements.
- b. *Response to summary statement (due 8:00 am May 20)*
After receiving your critique, you will have an opportunity to provide a 2-page response to the critiques, which will be reviewed by the instructor. These two items will be graded together on a full letter grade scale (i.e., A, A-, B+, B, B-, C+, C, C-, etc.). This grade will be weighted so that it accounts for 50% of your final grade in the course.

7. *Grant Review*

You will participate in the review of your classmates grant applications. This review will follow the procedures of an NIH review, using both the NIH critique templates and the NIH scoring system. These three items will be graded together as credit (A)/no credit (C). Note that all materials associated with this mock review are **confidential** and should not be shared with anyone outside of the course. At the end of the semester, all materials associated with this mock review (including the grant applications and your critiques) must be destroyed. Failure to adhere to these instructions constitutes grounds for a charge of academic misconduct.

- a. *Written review and preliminary scores (due May 3)*
Complete your review of assigned applications using the NIH RPG critique template. Overall impact and criterion scores should be noted on the critique template following the NIH scoring system instructions.
- b. *Mock review participation (due May 3)*
You will present your critique for your assigned grants and participate in discussion of unassigned grants.
- c. *Summary of discussion, revised review, and final scores (due May 10)*
You will update your critique and scores based on the in-class panel discussion to provide clear feedback to the applicant. If you are assigned as the primary reviewer, you will also write a summary of discussion that captures the main factors that affected scoring.

Academic Misconduct

Students are expected to observe all University guidelines pertaining to academic misconduct. As stated in the University Senate Rules and Regulations (2.6.1):

“Academic misconduct by a student shall include, but not be limited to, disruption of classes; threatening an instructor or fellow student in an academic setting; giving or receiving of unauthorized aid on examinations or in the preparation of notebooks, themes, reports or other assignments;

knowingly misrepresenting the source of any academic work; unauthorized changing of grades; unauthorized use of University approvals or forging of signatures; falsification of research results; plagiarizing of another's work; violation of regulations or ethical codes for treatment of human and animal subjects; or otherwise acting dishonestly in research." Academic misconduct will not be tolerated and will be dealt with in accordance with all University rules and regulations.

Accommodations

The staff of Services for Students with Disabilities (SSD), 135 Strong, 785-864-2620 (v/tty), coordinates accommodations and services for KU courses. If you have a disability for which you may request accommodation in KU classes and have not contacted them, please do so as soon as possible. Please also notify the instructor in writing (e-mail is acceptable) within one week of receiving this syllabus so that appropriate accommodations for this course can be discussed.

If a scheduled requirement is in conflict with a mandated religious observance, you must notify the instructor in writing (e-mail is acceptable) within one week of receiving this syllabus so that an alternative arrangement can be made in advance of the scheduled requirement.

Grading

The final grade for this course will be assigned following a straight percentage scale:
93-100% A; 90-92% A-; 87-89% B+; 83-86% B; 80-82% B-; 77-79% C+; 73-76% C; 70-72% C-; 67-69% D+; 63-66% D; 60-62% D-; <60% F.

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Class	Topic	Assignment
January 25	Overview of Funding Agencies & Mechanisms	
February 1	Mechanics of Grant Writing: Grant Application Overview	Selection of agency/mechanism due
February 8	NO CLASS MEETING (Instructor at Tenure Meeting) On Your Own: Outline your Grant	
February 15	Discussion of Grant Outlines Abstract & Specific Aims	Grant outline due
February 22	Significance & Innovation	Abstract & specific aims due
March 1	Approach & Preliminary Studies	Significance & innovation due
March 8	NO CLASS MEETING (Instructor Out of Town) On Your Own: Prepare Presentation	
March 15	Grant Presentations by Students	Approach due
March 22	NO CLASS MEETING (Spring Break)	
March 29	Investigator Environment	
April 5	F- & K-Awards: Training Potential/Mentoring Plan Institutional Commitment	Biosketch & Resources due
April 12	Human Subjects Responsible Conduct of Research Budget	
April 19	Grant Review Procedures	Complete grant application due; Will be distributed to assigned reviewers
April 26	NO CLASS MEETING (Instructor Out of Town) On Your Own: Prepare for Mock Review	
May 3	Mock Review	Written review & preliminary scores due
May 10	Responding to Summary Statements	Revised review & final scores due; Reviews to be distributed to grant PI
Finals		Response to summary statement due by 8:00 am, Friday, May 20

*****Next offering of this course will be Spring 2013*****