BC701: Grant Writing (1 Cr.)
Course Schedule: Fall 2013

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Course Objectives: The objectives of this course are as follows: 1. To introduce students to the intricacies of writing effective grant proposals for research in the Biomedical Sciences, 2. To develop an awareness of the methods whereby research proposals are evaluated, 3. To provide an overview of the agencies to which research proposals in the biomedical sciences are submitted, 4. To enhance general science writing and oral communication skills.

Methods: Course objectives will be achieved by having each student write a complete NIH-style research proposal based on their Ph.D. thesis research. The students will also be required to prepare and present both written and oral reviews of two of their classmates proposals during the “mock study section.” Intermediate assignments will be due throughout the semester to evaluate each student’s progress toward their final grant proposal. To provide instruction for these assignments, the class will meet for approximately 10 hours of face-to-face instruction and discussion throughout the semester. In addition, students are required to attend several one-on-one meetings with the instructor during the proposal-writing phase of the course. All proposals will also be reviewed by the student’s PI, who will attend the study section and provide an oral critique.

The final research proposal will include a cover page, “lay” narrative, a specific aims page of the proposed research, and sections that describe the significance and background of the project, and a detailed description of the experimental approaches that will be used to carry the project forward, and a separate section for citations. The research description section of your proposal must be 10 pages (or less) in length, single-spaced, with 0.5” margins all around. This page limit includes embedded figures with legends. The proposal must be fully cited with a separate reference section listing complete citations.

Assignments (and estimated preparation time):
- Sept. 13th: Your hypothesis in 25 words or less (~ 1 hr.).
- Sept. 20th: Layman’s paragraph and Innovation paragraph (~2 hr.).
- Sept. 27th: Specific Aims page (> 8 hrs.)
- Nov. 22nd: Final proposal (80 hr., or more).
- Dec. 6th: Written reviews of your two peer-reviewed proposals (20 hr.).

Grading: The course is graded by traditional grading only (A, B, etc.).
- 10% of your grade will be based on intermediate written assignments (see course schedule).
- 60% will be based on the quality and organization of your proposal.
- 20% will be based on your written/oral reviews of two other proposals at the study section.
- 10% will be based on class participation (attendance is mandatory).

Prerequisite: Second year (or later) Ph.D. student in Biochemistry, Biomedical Sciences, or closely related field.

Helpful resources on grant preparation and writing:
Course Schedule:

Sept. 6: Lecture: Introduction to course. The research proposal. Communicating your ideas.

Due: A hard copy of your hypothesis in 25 words or less.

Sept. 20: Lecture: Grant aesthetics, “Microsoft Word,” useful tips & tricks in Word, text, graphics, and figure placement (text boxes), image processing. Writing issues, grammar, spelling, transitions, etc.
Due: Hard copy of your “Laymen’s” paragraph and “Innovation” paragraph. These are very different. You can turn them both in on a single page.

Sept. 27: Lecture: Pitfalls of grant writing: The good, the bad, and the unfundable. Anatomy of the NIH.
Due: Hard copy of your Specific Aims page (first full page of the proposal).

Break: Write your proposal. No formal classes, however, my door is open. Please email me to make an appointment, or just drop by to discuss your progress. This is a critical part of your participation in the course. Use this time effectively. Do not wait until the last minute.

Nov. 22: Lecture: The NIH review process (study section), reviewing and scoring proposals. What to do if your proposal scores poorly, what can be fixed, and when is a proposal dead on arrival.
Due: Your FINAL proposal. Bring three hard copies of your final proposal to this meeting to be distributed to their primary and secondary reviewers and to the course instructor. Also give a copy of your research proposal to your advisor at this time.

Dec. 6: STUDY SECTION. You will give an oral critique of your two assigned proposals.
Note: Your advisor will attend (briefly) and provide an oral critique of your proposal. A review schedule will be provided prior to the meeting.
Due: Two copies each of your written reviews of your two assigned applications. (One copy for me, and one for each individual whose applications you reviewed. Also bring a copy for yourself.)
Make sure you have alerted your mentor/advisor to this meeting time, as their attendance is required. They do not have to attend the entire meeting, but must be present to participate in the review of your proposal. I will make a schedule for this important meeting.
This meeting will last ~3 hours.

Dec. 13: OPTIONAL
Due: Revised copy of your proposal, with the comments from your peers and mentor incorporated. Your “A1.”

Important Dates at a glance:
• Nov. 8th: NSF Predoctoral Fellowships due.
• Oct. 22nd – Nov. 5th: Student Presentations/SAC meetings.