College of Public Health & Health Professions and College of Medicine
PHC 7727
Grant Writing Skills for Clinical and Health Research
Summer C, 2021 2 credits
HYFLEX HPNP G312 Fridays 9:30 am (until up to 12 pm)

Instructor Information

Section 13184, 13185
Linda B. Cottler, PhD, MPH, FACE
Dean’s Professor of Epidemiology
Department of Epidemiology
College of Public Health and Health Professions and College of Medicine
Associate Dean for Research, PHHP
Gainesville FL 32611-0231
Phone: 352-273-5468
lbcottler@ufl.edu
Office Hours: By appointment

Section 18439
Volker Mai, PhD, MPH
Associate Professor of Epidemiology
Department of Epidemiology
College of Public Health and Health Professions and College of Medicine
Emerging Pathogens Institute
Gainesville, FL 32610-0009
Phone: 352-273-9398
vmai@epi.ufl.edu
Office Hours: By appointment
Course Overview or Purpose
This course provides practical instruction in the grant writing process, with a specific focus on National Institutes of Health (NIH) procedures. It provides the student with experience in writing a full grant application and in reviewing others’ grant applications. To provide a highly interactive learning environment, all assignments might be shared with the class for open discussion and critique. During the final class we will hold a Mock Grant Review session to assist students in understanding the process and content of grant reviews.

Prerequisites
Epidemiology Methods II or permission of instructors and permission from your mentor to write an F31 or equivalent grant with due dates within one year. Your mentor is the person who will be your main help for directing the science, not the instructors. It is not too early to get an era commons account ID. For class you will need one, so begin now to ask your grants office how to get one. Remember, this account ID will follow you throughout your career so choose a user ID wisely! The affiliation can always change, but not your user ID.

Course Objectives and/or Goals
Upon successful completion of the course, students should be able to:
1. Discuss the National Institutes of Health funding structure, grant types, and application criteria.
2. Understand and correctly prepare a NIH grant application
3. Seek and respond to a Request for Proposal (F31 or K award). An application to other granting mechanisms must be approved from course instructor prior to submission.

Course Materials
Most required resources will be available via download; links will be provided.

Course Requirements/Evaluation/Grading of Letter Grade

<table>
<thead>
<tr>
<th>Grading Components</th>
<th>100 Points Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to class preparation</td>
<td>5</td>
</tr>
<tr>
<td>Research Topic</td>
<td>5</td>
</tr>
<tr>
<td>Specific Aims</td>
<td>5</td>
</tr>
<tr>
<td>Research Strategy</td>
<td></td>
</tr>
<tr>
<td>- Flow chart-5pts</td>
<td></td>
</tr>
<tr>
<td>- Significance-5pts</td>
<td></td>
</tr>
<tr>
<td>- Approach-5pts</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
</tr>
<tr>
<td>Biosketch</td>
<td>5</td>
</tr>
<tr>
<td>Training Plan</td>
<td>5</td>
</tr>
<tr>
<td>Letters of Support</td>
<td>5</td>
</tr>
<tr>
<td>Presentation</td>
<td>10</td>
</tr>
<tr>
<td>Completed F31 or K Grant Package</td>
<td>25</td>
</tr>
<tr>
<td>Peer Feedback Forms</td>
<td>10</td>
</tr>
</tbody>
</table>
All materials will be graded on the revised submission; you may use multiple resubmissions to keep improving on each grant component. Please include your name and date and draft number on every submission. Participation grade will include your contributions to discussion of the draft materials (first submissions).
<table>
<thead>
<tr>
<th>Percentage or points earned in class</th>
<th>93% - 100%</th>
<th>90% - 92%</th>
<th>87% - 89%</th>
<th>83% - 86%</th>
<th>80% - 82%</th>
<th>77% - 79%</th>
<th>73% - 76%</th>
<th>70% - 72%</th>
<th>67% - 69%</th>
<th>63% - 66%</th>
<th>60% - 62%</th>
<th>Below 60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Grade equivalent</td>
<td>A</td>
<td>A-</td>
<td>B+</td>
<td>B</td>
<td>B-</td>
<td>C+</td>
<td>C</td>
<td>C-</td>
<td>D+</td>
<td>D</td>
<td>D-</td>
<td>E</td>
</tr>
<tr>
<td>Letter Grade Points</td>
<td>4.0</td>
<td>3.67</td>
<td>3.33</td>
<td>3.0</td>
<td>2.67</td>
<td>2.33</td>
<td>2.0</td>
<td>1.67</td>
<td>1.33</td>
<td>1.0</td>
<td>0.67</td>
<td>0.0</td>
</tr>
</tbody>
</table>

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar’s Grade Policy regulations at [http://www.registrar.ufl.edu/catalog/policies/registrationgrades.html](http://www.registrar.ufl.edu/catalog/policies/registrationgrades.html)

**Class Sessions**
The class will utilize interactive, blended, and didactic teaching styles using ZOOM as the main communication platform. Some class assignments will have a “mock” aspect. The “mock” aspect will provide students an opportunity to participate both as an applicant and a reviewer. This will involve both critiquing and having work critiqued. The work to be critiqued will be examined by both the instructor(s) and the student reviewer. Please submit your assignments BEFORE the class period through e-learning. The feedback will be graded, as will your revised version of each assignment.

This interactive style of learning demands that each participant actively prepares for class participation, and commits to the peer review process, an essential element of academic and scholarly life. Students are expected to take the review process seriously as it an important learning objective of this class.
<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Topic and (Assignments)</th>
<th>Description</th>
<th>Points</th>
</tr>
</thead>
</table>
| 1 | 05/14 | Class will NOT meet! COMPLETE prior to 2<sup>nd</sup> class! | 1. Watch and be ready to discuss these: [https://www.youtube.com/watch?v=2cEZk1R-dJc](https://www.youtube.com/watch?v=2cEZk1R-dJc) [http://youtu.be/9cNRMsCGfHo](http://youtu.be/9cNRMsCGfHo)  
3. Interview ONE faculty member from a different department (not your mentor, not anybody already questioned by another student taking the course this year—so you need to ask them if they have been interviewed already and if so, choose someone else); Interview ONE faculty member from your own department. Ask them: a) What is the challenge involved in writing grants? b) How many have they written in their career? c) What is their one sentence advice to you for writing this grant?  
4. Identify examples for similar projects (topic, aims) from abstracts for relevant F31 grants listed in NIH reporter. Be sure to notate how many are active, what university they are from etc. | 5 |
| 2 | 5/21 | Research Topic (#1 interview info; submit online be ready to discuss in class  
#2 need your research question and a brief paragraph on topic; submit online before class and bring hard copy to class) | 1<sup>st</sup> hour: Discuss the information from faculty above. Discuss your impressions of the YouTube videos. What are the most important tips from the videos? How can you avoid common mistakes?  
2<sup>nd</sup> and 3<sup>rd</sup> hour: We will introduce NIH reporter! You will share with the class your research interest—a question that you plan to address—or your dissertation question and an outline of what you would like to do. (You will write a NIH F31 or another instructor approved grant application this semester.) We will discuss specific aims—important elements, how-tos, and good examples from NIH RePORTER. | 5 |
<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
</table>
| 3    | 5/28 | Specific Aims (SA) (#1 submit SA draft online before class) | 1<sup>st</sup> hour: review with classmates your aims (written after reviewing the guidelines on the NIH website above). State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved. To get ideas on aims, read some material from NIH Reporter.  
2<sup>nd</sup> hour: Instructors will reinforce the material on best practices for writing aims.  
3<sup>rd</sup> hour: Students present aims (randomly selected). For next week, revise them to turn them in for grading. |
| 4    | 6/04 | Flow chart (#1 submit revised SA and #2 FC draft) | Review the flow charts on the course site. Bring to class a graphic representation of your study design including sample size, eligibility, all participation, all measures, intervention if applicable. Criteria for grading: clear, complete, and visually attractive.  
1<sup>st</sup> hour: review revised SA and get feedback.  
2<sup>nd</sup> hour: Instructors review best practices for flow charts.  
3<sup>rd</sup> hour: Students present flow charts (randomly selected). Turn in corrected flow chart next week for grading. |
| 5    | 6/11 | Significance (#1 submit revised FC and #2 Significance draft) | Explain how the research question challenges or seeks to shift current research or clinical practice paradigms. Review the NIH guidelines for Significance. Bring to class an example from your area of interest and identify its strengths and weaknesses.  
1<sup>st</sup> hour: Instructors will present hints for developing a strong Significance section.  
2<sup>nd</sup> 3<sup>rd</sup> hour: Students will review each others’ section. |
| 6    | 6/18 | Approach (#1 revised Significance and #2 Approach draft) | 1<sup>st</sup> hour: discussion of principles for drafting an overall strategy, methodology, and planned analyses that are well reasoned and appropriate to accomplish the specific aims of the project. We will present you examples from successful grants.  
2<sup>nd</sup> and 3<sup>rd</sup> hour: Review and discussion of students’ work (chosen at random). |
| 7    | 07/09 | Biosketch (Final POLISHED version due 07/02) | Personal statement, position and honors, peer reviewed manuscripts, and research support  
NIH Biosketch template and sample can be accessed from: https://www.ncbi.nlm.nih.gov/sciencv/ (generates bio)  
Arrange small group meeting (ANY TIME during the week) to discuss and edit biosketch draft to generate final version |
### Training Plan (TP) aka “Background and Goals for Fellowship Training” (#1 Revised Approach and #2 TP draft)

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
<th>Schedule</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>7/16</td>
<td>1st hour: Discussion/edits of TP 2nd hour: Biosketch discussion 3rd hour: Revised Approach discussion</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>7/23</td>
<td>1st hour: Principles of each 2nd hour: Discussion/edits each 3rd hour: Open discussion</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>07/30</td>
<td>Students will present 4-6 slides (max 10 min) to summarize their grant, followed by brief discussion and scoring.</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>08/02</td>
<td>Critique of assigned presentations (reviewer's 1-3)</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>08/04</td>
<td>Final grant deadline</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

---

**Statement of University’s Honesty Policy (cheating and use of copyrighted materials)**

**Academic Integrity** – Students are expected to act in accordance with the University of Florida policy on academic integrity (see Student Conduct Code, the Graduate Student Handbook or this web site for more details: [www.dso.ufl.edu/judicial/procedures/academicguide.php](http://www.dso.ufl.edu/judicial/procedures/academicguide.php)).

Cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior. We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

**Policy Related to Class Attendance and Make-up Work**

This is an interactive class and students are expected to be present and to participate in all class sessions. Students who know they will need to miss a class session should discuss this with the instructor prior to the date of the class.

**Statement Related to Accommodations for Students with Disabilities**

**Accommodations for Students with Disabilities**

If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office ([http://www.dso.ufl.edu/](http://www.dso.ufl.edu/)). The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation.
The College is committed to providing reasonable accommodations to assist students in their coursework.

**Counseling and Student Health**

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the UF Counseling & Wellness Center, 352-392-1575. Visit their web site for more information: [http://www.counseling.ufl.edu/](http://www.counseling.ufl.edu/).

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services, including primary care, women's health care, immunizations, mental health care, and pharmacy services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: [www.health.ufl.edu/shcc](http://www.health.ufl.edu/shcc)

Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789. From the Crisis Center: **“Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.”**

**Class Demeanor Expected by the Professors**

As a classroom of scholars, the instructors will treat students with respect and expects respect in return. The classroom climate will be supportive, encouraging and open. To this end, no one should be taking calls or texts or using their laptops for other purposes than taking notes while the class is in session, except in the case of emergency. Electronic items must be turned off if they appear to detract from classroom discussion and attention. Please listen attentively; participation is required. When opinions differ, please listen first, and then prepare to comment. If you feel you have been treated disrespectfully by any member of the scholastic community involved in this course, please bring this to the instructor’s attention privately for remediation.