Instructor:
Philip Fisher
Office: LISB 427
philf@uoregon.edu

Meeting Time:
Tuesdays 9-11:20am
LISB 417

IMPORTANT: You are required to bring a laptop computer, with internet access, to each class meeting.

Contacting and Appointments:
There are no office hours for this class; however, Professor Fisher is available to respond to questions or make individual appointments through e-mail.

Textbook:
“The Grant Application Writer’s Workbook” (GAWW) is the required text. There are two versions, one for NIH and one for NSF. We will be working from the NIH version. If you think you will only be using the NSF one during your career, you should purchase that one; however, be sure you have access to the NIH version as well during the course through the buddy system, if no other way.

Purchase the text from: http://www.grantcentral.com/. This will require a credit card.

Different Credit Options:
This course is being offered for both 1 and 3 credits. Assignments are different for each level of credit. This syllabus contains outlines for both credit levels.

The major difference between 1 and 3 credits is that the 3-credit option students will be writing the core of a grant application. Typically, those who sign up for the 3 credit option will be in their 3rd year of the Ph.D. program or higher (including postdocs). 1-credit students can be any level. Both 1 and 3 credit students will be actively involved in providing critiques and feedback throughout the process. Thus 1-credit option students will get an opportunity to understand review criteria and this will help them once they are in a position to write their own proposals. They can sign up to take the seminar again at the 3-credit level in subsequent years when they are ready to write their own proposals.

Grant Writing Options
3-credit students can choose to write any of four types of grants: R21, R03, R01 or NRSA fellowship. We will be discussing the functions of these four types of grants, but all require very similar “research strategy” core sections, albeit with differing page lengths related to the different scope (and dollars) of the grant mechanism. The “research strategy” cores of any of these applications include: a specific aims section, sections that cover the significance, innovativeness, and justification (i.e., background) of the proposed work, a section on preliminary studies, and then the section on the research design and methods. In an R21 and R03 (small grants) this whole core is 6 pages, in an R01 it is 13 pages, and in an NRSA fellowship it is 10 pages. You do not need to pick your grant mechanism before we start the class.
However, it is strongly recommended that you talk with your advisor and get the advisor to agree to work with you on the design of the study you propose. This will allow us to focus more on grantsmanship. The agreement of the advisor to work with you is NOT a requirement of the seminar; it is just a really good idea.

Grading:
1 Credit Students
- 25% on in class participation and preparation for each class period
- 50% on the quality of TIMELY written critiques and other feedback given to fellow students who are writing their applications
- 25% on performance and the written critiques provided for the assigned study section

3 Credit Students
- 25% on in class participation and preparation for each class period
- 50% on quality of “research strategy” section of a grant application worked on throughout the semester
- 25% on quality of the TIMELY written critiques and other feedback given to fellow students throughout the term on sections of their grant applications, and on performance and written critique for the assigned study section

Products: Your very own Grant Application Portfolio (Please turn this in, in a three-ring binder, at the end of the term for grading. It will be returned once I’ve evaluated it).

1 Credit Students:
This will consist of 3 components:
   A. Grant Application Background Materials
   B. Your written critiques of others’ sections of their applications
   C. Your written critiques of others’ completed grants for study section

3 Credit Students:
This will consist of 6 components:
   A. Grant Application Background Materials
   B. Your written critiques of others’ sections of their applications
   C. Your written critiques of others’ completed grants for study section
   D. Your drafts/revisions of all sections of the grant and written critiques you’ve received, including your bulleted outline
   E. Your completed grant application
   F. Written critiques of your grant application from study section
### Schedule by Week of Topics, In Class Activities, and Assignments

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<thead>
<tr>
<th>Date</th>
<th>Topic for the Day</th>
<th>Activities</th>
<th>Assignments for following week</th>
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<tr>
<td>Jan 7</td>
<td>Organizational meeting; Overview of the Seminar and the NIH Funding Process; Developing a grant idea</td>
<td>1. Description of class content and goals.</td>
<td>1. Read GAWW Overview and Chapters 1, 2, 3, and 4. THESE SECTIONS CONTAIN IMPORTANT INFORMATION THAT YOU WILL NEED TO COMPLETE ASSIGNMENTS FOR THE COURSE CORRECTLY, AND THAT WILL BE USEFUL FOR ALL FUTURE GRANT APPLICATIONS.</td>
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<td>2. Review of syllabus.</td>
<td>2. Begin work on your Grant Application Background Materials for your Grant Portfolio (NOTE: see supplemental description following this table).</td>
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<td>3. Discussion of expectations for 1 and 3 credit students.</td>
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<td>4. Lecture: Overview of NIH funding process.</td>
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<td>5. Overview of assignments for the week, including how to create develop an idea for your grant application and generate a bulleted outline</td>
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<td>Jan 14</td>
<td>No class—PAF in London</td>
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<td>1. Complete work on Grant Application Background Materials for Grant Portfolio and submit to Professor Fisher by Monday, Jan 20, 9am.</td>
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<td>3. Decide on the grant mechanism you’ll be applying for and complete bulleted outline for grant application and send to Professor Fisher by Monday 9am (Chapter 2 of GAWW is especially important for this assignment).</td>
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| Jan 21 | The Specific Aims section: A universe on a single page | 1. Review Grant Application Background Materials content  
2. Introduce Specific Aims  
3. Volunteers present bulleted outline to the whole class  
4. Small groups announced  
5. In small groups students each present their own and then assign critiques for others’ bulleted outlines | 1. Read Chapter 7 & 8 of GAWW.  
2. Complete critique of others’ bulleted outlines and send to applicant and Professor Fisher by Friday 5pm  
3. Revise your bulleted outline based on critique and your own ideas  
4. Complete your specific aims and submit to Professor Fisher by Monday 9am |
| Jan 28 | Writing the Significance and Innovation sections | 1. Introduce Significance and Innovation sections  
2. Volunteers present their Specific Aims to the whole class  
3. In small groups students each present their own and then assign critiques of others’ specific aims | 1. Read Chapter 9 of GAWW.  
2. Complete critiques of others’ specific aims send to applicant and Professor Fisher by Friday 5pm  
3. Revise your specific aims  
4. Complete your Significance and Innovation sections and submit to Professor Fisher by Monday 9am |
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| Feb 4  | Outlining the Approach section | 1. Introduce Approach section  
2. Volunteers present Significance and Innovation sections to whole class  
3. In small groups students each present their own and then assign critiques of others’ significance and innovation sections | 1. Read Chapter 10 of GAWW  
2. Complete critiques of others’ Significance and Innovation sections and send to applicant and Professor Fisher by Friday 5pm  
3. *Revise your Significance and Innovation section*  
4. *Develop a bulleted outline of your Approach section and submit to Professor Fisher by Monday 9am* |
| Feb 11 | Writing the Approach section | 1. Volunteers present Approach section outlines to entire class  
2. In small groups students each present their own and then assign critiques of others’ Approach section outlines | 1. Read Chapter 11 of GAWW  
2. Complete critiques of others’ Approach section outlines and send to applicant and Professor Fisher by Friday 5pm.  
3. Develop a list of 5 questions you want to ask funded researchers about their grant writing experiences and submit to Professor Fisher by Monday 9am  
4. *Revise your Approach section outline and submit to Professor Fisher by Monday 9am (you may also wish to begin writing the approach section)* |
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| Feb 18 | What it takes: Q&A with federally funded researchers | 1. Q&A with researchers  
2. In small groups students each present their own revised Approach section outlines. | 1. Review the materials in GAWW Chapters 12-17 (this is information you will need for actual grant submissions but not for this class)  
2. Complete your approach section based on the revised outline and send to Professor Fisher by Monday 9am |
| Feb 25 | How to write a successful NRSA application | 1. NRSA overview  
2. In small groups work on critiquing each student’s approach; ALL STUDENTS’ APPROACH SECTIONS MUST BE CRITIQUED, EITHER IN CLASS OR BY EMAIL SO BE PROACTIVE ABOUT YOUR PLANS AND MANAGE YOUR TIME CAREFULLY | 1. Read GAWW Chapters 18-21  
2. Revise your approach section based on feedback from other students  
2. Send complete grant application, including Title, Project Summary, & Abstract (See GAWW Chapters 18 & 19), as well as all Research Plan Sections and Literature Cited, to Professor Fisher by Monday 9am |
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<td>Mar 4</td>
<td>The NIH Review Process</td>
<td>1. Grant review process overview, including grant review criteria</td>
<td>1. Read GAWW Chapter 5</td>
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<td>2. Preparation for study section (description of how it will run)</td>
<td>2. Complete your critiques of others' applications for study section</td>
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<td>3. Assignment of reviewers to grant applications</td>
<td>3. Review the document entitled “How to be a member of an NIH R01 study section” posted at</td>
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<td>4. (time permitting) So you didn’t get funded: Review of summary statement feedback and how to address it in a revised application</td>
<td><a href="https://www.hhmi.org/sites/default/files/Educational%20Materials/Lab%20Management/study_section.pdf">https://www.hhmi.org/sites/default/files/Educational%20Materials/Lab%20Management/study_section.pdf</a> (note: all three lines of the above need to be included in the URL)</td>
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<tr>
<td>Mar 11</td>
<td>Study section</td>
<td>Grant reviewing</td>
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<tr>
<td>Mar 18</td>
<td>Study section</td>
<td>Grant reviewing</td>
<td>1. Turn in your completed Grant Application Portfolio</td>
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GRANT APPLICATION BACKGROUND MATERIALS Components

1. Go to http://grants.nih.gov/grants/grant_basics.htm and poke around. Write a few notes on what you found interesting or what you want to bookmark. *Complete in a one-pager documenting completion of the grants basics exercise.*

2. Using Chapter 1 of GAWW and the Internet, decipher the following acronyms: NIH, NIMH, NICHD, NIA, NIDA, CSR, NoA, PO, SRA, PI, co-I, co-PI, RFA, PA, FOA, RPG (R01), SRG (study section), PDRP. Be sure to “click” on anything you don’t really understand and read about it. *Complete a one-pager documenting completion of each of these tasks.*

3. Choosing at least one NIH Institute, find, download, and skim their strategic plan, especially those areas relevant to your research: NICHD’s *2011 plan released Dec 2011*, NIDA’s *5-year strategic plan 2010*, NIMH’s *strategic plan 2008*. *Cut and paste this strategic plan into your portfolio.*

4. Learn about what grants are out there. First go to the grants planning application website and read through that page. Then go to the grants.gov website and look for opportunities. That will be overwhelming. So then go to NIH and NSF and then within each of these agencies to the areas that deal with developmental research (NIMH, NICHD for example).
   
   - http://grants.nih.gov/grants/planning_application.htm#search
   - http://www.grants.gov/applicants/find_grant_opportunities.jsp

   *Cut and paste descriptions of at least 5 opportunities (PAs or RFAs you found that fit your interest areas).*

5. Log on to the NIH RePORTER and search for grants in your area (remember, you may want to search by the names of major researchers in your area). If you will be writing for NSF, use the website noted for NSF proposals. *Write a one pager about what you learned from RePORTER.*