I. Course

A. Catalog Description
Cr. 3. (3-0). Pre-requisite: Doctoral standing or permission of the instructor. Prepares students for identifying, planning, collaborating, writing, budgeting, submitting, tracking, revising and managing grants.

B. Purpose
This course introduces the student to the process of grantsmanship. This includes knowledge of sponsors and opportunities as well as practical “know-how” in writing competitive grants for supporting research in social service and health service provision. The emphasis of the course will be on federal grants, but state and foundation grants will also be cited as case illustrations.

II. Course Objectives

A. Upon completion of this course, students will be able to:

1. Demonstrate knowledge of a wide array of federal and foundation grant sources;
2. Interpret grant program announcements;
3. Plan grant writing strategies;
4. Match intellectual interests with appropriate sponsor research areas;
5. Demonstrate an understanding of key elements in research design and methods that are sought by sponsors;
6. Develop and justify grant budgets;
7. Demonstrate an understanding of the process used to procure letters of support and intent; and
8. Delineate ethical issues related to the protection of human subjects and the role of the IRB.
III. Course Structure

A. Course Content. This course will include the following topical (content) areas:

1. A thorough review of grant mechanisms to support social/human services and health and mental health research. The focus will be on federal NIH grants, particularly dissertation support (R36, F31) and early career funding (T and K awards, R03 and R21 mechanisms). Dissertation support from sources other than NIH (e.g., NASW, SSWR, and APA fellowships, Foundation Support) will also be covered. Other federal, state and foundation grants will also be discussed, but will not be the focus of the class.

2. In-depth discussion on how to understand and respond to program announcements (PA’s), requests for proposals (RFP’s), and other types of funding announcements. This will include identifying the right funding mechanism for the researcher’s interest and career stage.

3. Understanding the grant submission and peer review process and the scoring of grant proposals, with a particular focus on the NIH review and scoring criteria. NIH protocols and procedures have changed significantly in recent years, and we will discuss the most current ones. We will also discuss various ways to stay abreast of changes.

4. The class will be taught as a Grant Writing Workshop. The main thrust of the class will be hands-on practice on grant writing, including:
   1. Early conceptualization of research ideas
   2. Literature review
   3. Refining concepts
   4. Writing the body of the proposal
   5. IRB/Human Subject’s
   6. Securing linkages and letters of support
   7. Putting the full proposal together
   8. Submitting the grant application electronically or in other formats
   9. Responding to reviews
   10. Re-submitting

5. The emphasis will be on writing a proposal for dissertation funding, but other relevant mechanisms will also be covered (i.e., NIH small research grant or R03; K and T awards;
professional organization awards (i.e., fellowships); and the GCSW Doctoral Qualifying Paper).

6. Learning how to respond to reviewer’s comments and prepare a revised application is a critical skill. It is exceedingly rare for researchers to be funded on first submission. Thus, understanding and responding to reviewers’ comments and submitting a revised application are critical elements of successful grantsmanship.

7. **This class is not a research methods class, and it is not a class on statistical analyses.** Students are expected to have completed methodology and statistics courses prior to or concurrently with this class. While we will discuss various methodological and analytical issues and concepts as they relate to specific research hypotheses, they are not the focus of the class. The focus of the class is on understanding the grant writing process and on writing grant applications that have a high probability of being funded.

8. **The class is also not a project management class.** Demonstrating to reviewers that one has the proper resources, knowledge, and experience to effectively manage a grant-funded project is a critical issue. As such, we will discuss in class how to convey this to reviewers in the proposal. However, in-depth coverage of grants management is beyond the purview of this course.

**B. Course Structure.**

1. The spring 2015 semester course will consist of 14 three-hour classes, plus outside readings and assignments.

2. Classes will include lectures facilitated by the professor; brief guest lectures by faculty who have successfully applied for various funding opportunities; work in small groups; student submissions (segments of proposal throughout semester and final proposal at the end); and an on-going internal peer-review system (discussed later). Students will also be made aware of relevant activities (conferences, workshops, etc.) outside of class and encouraged to attend.

3. Class attendance, student participation, and reading assigned materials are all required. The more prepared students are for class, the more they will get out of the class. **It is the instructor’s goal that at the end of the course the student will**
have a complete, solid draft of a dissertation funding proposal ready for submission.

IV. Textbooks

A. Required Texts & Reading. There are two required textbooks. Both have been ordered through the campus bookstore. Two additional required resources are available at no cost online.


4. PHS 398: U.S. Department of Health and Human Services Public Health Service Grant Application and SF424 (R&R): Application and Electronic Submission Information. Microsoft Work and Adobe PDF files (including fillable forms) available from http://grants.nih.gov/grants/forms.htm at no cost. This website will always have the most recent forms, so it is best to bookmark it and download the forms for each use, rather than downloading a copy of the form and saving it. This way you will always be using the most recent forms.

B. Recommended Texts. The texts listed below include additional grant writing resources. Other texts are listed covering areas such as APA style, quantitative and qualitative research methodologies, statistical analyses, ethics, understanding and reviewing the scientific literature, and evidence-based social work practice. Students are encouraged to select those that meet their individual needs. This list is not meant to be exhaustive; if there are texts you find particularly useful and are not listed, please let me know and I will include them in the list.


C. Journal Articles. Peer-reviewed journal articles will be assigned and will be required reading. Students will be expected to conduct individual literature searches and literature reviews according to their area of research. The UH library has full text articles online through the electronic resources section. Students are encouraged to register for remote access to the HAM-TMC Medical Library at the M. D. Anderson Library Service Desk, which allows students to access other journal resources. Students are also encouraged to obtain software to manage their references (e.g., Endnotes, Refworks, etc.) and to seek training in the use of their preferred software. Lee Hilyer, Associate Librarian in the M. D. Anderson Library, is a great resource on the use of Endnotes and other bibliographic software and he maintains an Endnotes blog.
D. Relevant websites are listed in section X: Bibliography.

V. Course Requirements

A. Attendance and Participation/Reading Assignments. Students must complete all assigned readings prior to class and actively engage in class discussion and activities. Attendance and participation will count toward the final class grade (10% of grade). They may also be taken into consideration should a student’s grade be marginal. Each absence will result in a 5 point loss, unless cleared a priori with the instructor and excused. Students are expected to notify the instructor via phone or email ahead of time, whenever possible, to inform him of lateness and/or any absence. More than 3 absences may automatically result in a lower letter grade, and the instructor reserves the right to ask the student to withdraw. With regards to participation, of particular importance will be the internal peer review mechanism discussed below.

B. Written Assignments. Students will be required to submit sections of their proposals (e.g., specific aims, background and significance, approach, etc.) as the semester proceeds, as per the outline in the syllabus. Alternate formats dictated by a particular dissertation funding source or announcement will be acceptable with prior approval from the instructor. Timely submission and resubmission of these sections accounts for 20% of the final grade.

C. A final, complete, submission-ready proposal for dissertation funding will be due at the end of the semester and will be 45% of the final grade.

D. Projects. The class will function as an ongoing, internal peer-review group. Beginning on the 3rd week of the semester, students will hand in sections of their proposals, starting with the specific aims. Every week, students will review each other’s work as follows:

1. Students distribute the section due for that week (e.g., specific aims) via email to the entire class list no later than 3 days prior to class.

2. Two primary reviewers will be appointed by the instructor ahead of time for each submission. These two students will be primarily responsible for reading the submitted section and providing detailed feedback in class, following a mock review panel format. The professor will distribute a list of primary reviewers for each week.
3. Other students (in addition to the two primary reviewers for each submission) will be expected to read the submitted section as well and to add their comments and feedback in class.

4. The student whose submission is being reviewed is expected to remain silent and non-defensive, and to take in the comments and suggestions of the primary reviewers and the rest of the class. Earlier in the process reviewers can ask the student whose submission is being reviewed for some clarification. Later in the semester, however, this will no longer be allowed. Remember that NIH, NSF and Foundation reviews are blind and that the researcher whose grant is being reviewed is not in the room and cannot clarify reviewer misunderstandings or answer questions that may arise. Thus, effective grant writing also involves anticipating reviewer’s reactions, comments, and questions, and addressing them ahead of time through clear and concise writing.

5. Following this format, every week (starting week 3) students will present their work to be critiqued and be prepared to critique the work of fellow students. Active participation in the internal peer-review process (that is, providing feedback to other’s work in class as scheduled) will be 20% of the final grade.

E. Exams. There might be quizzes throughout the semester place on Blackboard or in class, or other brief assessments. These will be on assigned readings, and the purpose is to encourage students to stay on top of their readings. These brief assessments account for 5% of the final grade.

F. Interruptions and distractions. To avoid disruptions, students will turn off pagers, cell phones and other electronic devices during class. If special circumstances merit leaving a cell phone or beeper on, please discuss with the professor prior to the start of class. Laptops will be used regularly in class. Students are encouraged to use the laptop only for class purposes and to refrain from using them for anything unrelated to the class.

G. Summary of Class Requirements:

   Attendance & Participation                              10%
   Timely submission/resubmission of proposal sections     20%
   Peer Reviewer Role                                      20%
   Final, complete proposal                                45%
   Unannounced Quizzes/Assessments                         5%
VI. Evaluation and Grading

The following standard grading scale has been adopted for all courses taught in the college.

\[
\begin{array}{ll}
A &= 96-100\% \\
A- &= 92-95.9\% \\
B+ &= 88-91.9\% \\
B &= 84-87.9\% \\
B- &= 80-83.9\% \\
C+ &= 76-79.9\% \\
C &= 72-75.9\% \\
C- &= 68-71.9\% \\
D &= 64-67.9\% \\
F &= \text{Below 64}\% \\
\end{array}
\]

VII. Policy on grades of I (Incomplete):

The grade of "I" (Incomplete) is a conditional and temporary grade given when students are either (a) passing a course or (b) still have a reasonable chance of passing in the judgment of the instructor but, for non-academic reasons beyond their control have not completed a relatively small part of all requirements.

Students are responsible for informing the instructor immediately of the reasons for not submitting an assignment on time or not taking an examination. Students must contact the instructor of the course in which they receive an "I" grade to make arrangements to complete the course requirements. Students should be instructed not to re-register for the same course in a following semester in order to complete the incomplete requirements.

The grade of "I" must be changed by fulfillment of course requirements within one year of the date awarded or it will be changed automatically to an "F" (or to a "U" [Unsatisfactory] in S/U graded courses). The instructor may require a time period of less than one year to fulfill course requirements, and the grade may be changed by the instructor at any time to reflect work completed in the course. The grade of "I" may not be changed to a grade of W.

VIII. Policy on academic dishonesty and plagiarism

Students are expected to demonstrate and maintain a professional standard of writing in all courses, do one’s own work, give credit for the ideas of others, and provide proper citation of source materials. Any student who plagiarizes any part of a paper or assignment or engages in any form of academic dishonesty will receive an “I” for the class with a recommendation that a grade of F be assigned, subsequent to a College hearing, in accordance with the University policy on academic dishonesty. Other actions may also be recommended and/or taken by the College to suspend or expel a student who engages in academic dishonesty.

All papers and written assignments must be fully and properly referenced using APA style format (or as approved by the instructor), with credit given to the authors whose ideas you have used. If you are using direct quotes from a specific author (or authors), you must set the quote in quotation marks or use an
indented quotation form. For all direct quotes, you must include the page number(s) in your text or references. Any time that you use more than four or five consecutive words taken from another author, you must clearly indicate that this is a direct quotation. Please consult the current APA manual for further information.

Academic dishonesty includes using any other person’s work and representing it as your own. This includes (but is not limited to) using graded papers from students who have previously taken this course as the basis for your work. It also includes, but is not limited to submitting the same paper to more than one class. If you have any specific questions about plagiarism or academic dishonesty, please raise these questions in class or make an appointment to see instructor. This statement is consistent with the University Policy on Academic Dishonesty that can be found in your UH Student Handbook.

IX. Course Schedule and Reading Assignments

A. Assignments: As per section V above.

B. Course Schedule. The spring 2015 session runs for 14 weeks, from January 20th through April 28th 2015 (no class on March 17th, Spring Recess). Class will meet Tuesdays from 8:30 AM until 11:30 AM, with a 10-minute break around 10:00 am.

C. Consultation. I am available to speak with students before/after class, during office hours, or by appointment.

D. Statement on changes to syllabus. Dr. Torres reserves the right to revise the syllabus content and/or schedule for time management or topical reasons.

E. Week-by-Week Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 20</td>
<td>Welcome/Class Overview; Introduction to NIH Grants/Funding Mechanisms: Finding the Match; Web Resources</td>
</tr>
<tr>
<td>2</td>
<td>Jan 27</td>
<td>NIH Peer Review Process; Specific Aims (Overview; Hypotheses)</td>
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<tr>
<td>3</td>
<td>Feb 3</td>
<td>Specific Aims (Building Conceptual Models)</td>
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<tr>
<td>4</td>
<td>Feb 10</td>
<td>Specific Aims (Building Conceptual Models); Start Internal Peer Review</td>
</tr>
<tr>
<td>5</td>
<td>Feb 17</td>
<td>Research Strategy: Significance</td>
</tr>
<tr>
<td>6</td>
<td>Feb 24</td>
<td>Research Strategy: Innovation</td>
</tr>
<tr>
<td>7</td>
<td>Mar 3</td>
<td>Research Strategy: Approach (Overview of Research Design, Research Setting)</td>
</tr>
<tr>
<td>8</td>
<td>Mar 10</td>
<td>Research Strategy: Approach (Preliminary Studies; Specialized Personnel; Recruitment and Sampling)</td>
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<tr>
<td>---</td>
<td>No Class Mar 17</td>
<td>University of Houston Spring Recess: March 16—March 20</td>
</tr>
<tr>
<td>9</td>
<td>Mar 24</td>
<td>Research Strategy: Approach (Data Collection; Outcome Measures; Data Management and Quality Control)</td>
</tr>
<tr>
<td>10</td>
<td>Mar 31</td>
<td>Research Strategy: Approach (Data Analyses; Power Analysis; Human Subjects)</td>
</tr>
</tbody>
</table>
Week 1: January 20, 2015

Topics:
- Welcome and class overview/review of syllabus
- Introduction to NIH Grants and Review of Funding Mechanisms

Textbook Readings:
- Sternberg Chapters 1-3 // Locke et al Chapters 1-3
- Optional: Scheier & Dewey Forward, Overview, Ch. 3, and Appendices 1 and 2
- Optional: Brewer & Achilles Introduction and Chs. 1-6

Journal Articles:

Week 2: January 27, 2015

2015 Topics:
- NIH Peer Review Process
- Specific Aims (Overview; Constructing Hypotheses)

Textbook Readings:
- Sternberg Chapters 4-7 // Locke et al Chapter 9-10
- Optional: Scheier & Dewey Chapter 1-3, 6-7, 11-12
- Optional: Brewer & Achilles Chapters 7-11 and 13; Kline, Chapter 9

Journal Articles:

Week 3: February 3, 2015

Topics:
• Specific Aims (Building Conceptual Models)

Textbook Readings:
• Sternberg Chapters 8-9 // Locke et al 4-6

Journal Articles:
• TBA

Week 4: February 10, 2015

Topics:
• Specific Aims (Building Conceptual Models)
• Draft 1 of Specific Aims Due; Start Internal Peer Review

Textbook Readings:
• Sternberg Chapters 10-12
• Locke et al Chapters 7-8
• Optional: Scheier & Dewey Chapter 3

Journal Articles:

Other:

Week 5: February 17, 2015

Topics:
• Research Strategy: Significance

Textbook Readings:
• Sternberg Chapters 13-15 // Locke et al Part III: Specimen Proposals
• Optional: Scheier & Dewey Chapter 3; Russel & Morrison, Chapter 9

Journal Articles:

Week 6: February 24, 2015

Topics:
• Research Strategy: Innovation
• Revised Draft of Specific Aims Due
• Internal Peer Review Process

Textbook Readings:
• Sternberg Chapter 16
• Locke et al Part III: Specimen Proposals
• Optional: Scheier & Dewey Chapter 3; Russel & Morrison, Chapter 9

Journal Articles:

Week 7: March 3, 2015

Topics:
• Research Strategy: Approach (Overview of Research Design, Research Setting)
• First Draft of Innovation Due
• Internal Peer Review Process

Textbook Readings:
• Sternberg Chapters 17-19
• Locke et al Part III: Specimen Proposals
• Optional: Scheier & Dewey Chapter 3; Russel & Morrison, Chapter 10; Kline Chapters 3-5

Journal Articles:

Week 8: March 10, 2015

Topics:
• Research Strategy: Approach (Preliminary Studies; Specialized Personnel; Recruitment and Sampling)
• First Draft of Approach (Overview of Research Design, Research Setting) Due
• Internal Peer Review Process

Textbook Readings:
• Optional: Russel & Morrison, Chapters 10 & 11; Kline Chapter 6

Journal Articles:

[NO CLASS March 17: UH Spring Recess 3/16 to 3/20]

Week 9: March 24, 2015

Topics:
- Research Strategy: Approach (Data Collection; Outcome Measures; Data Management and Quality Control)
- First Draft of Approach (Preliminary Studies; Specialized Personnel; Recruitment and Sampling) Due
- Internal Peer Review Process

Textbook Readings:
- Optional: Kline Chapter 7

Journal Articles:

Week 10: March 31, 2015

Topics:
- Research Strategy: Approach (Data Analyses; Power Analysis; Human Subjects)
- First Draft of Approach (Data Collection; Outcome Measures; Data Management and Quality Control) Due
• Internal Peer Review Process

**Textbook Readings:**
• Optional: Scheier & Dewey Chapters 4 & 16; Russel & Morrison, Chapter 16

**Journal Articles:**

**Week 11: April 7, 2015**

**Topics:**
• Biosketch; Environment; Budgets; Appendices
• Draft of Revised Specific Aims and Approach Due
• Internal Peer Review Process

**Textbook Readings:**
• Optional: Scheier & Dewey Chapter 15; Russel & Morrison, Chapters 12-13

**Journal Articles:**
• TBA

**Week 12: April 14, 2015**

**Topics:**
• Electronic Submissions; Responding to Reviewers
• Draft of Biosketch, Environment, Budgets, and Appendices Due
• Internal Peer Review Process

**Textbook Readings:**
• Optional: Scheier & Dewey Chapters 17 & 18; Russel & Morrison, Chapters 12-13
• Optional: Brewer & Achilles Chapter 12

**Journal Articles:**
• TBA
Week 13: April 21, 2015

Topics:
- Putting it all together; Work on Final Proposals
- Complete Draft of Full Proposal Due for first half of class
- Internal Peer Review Process

Textbook Readings:
- Optional: Scheier & Dewey Chapter 19

Journal Articles:
- TBA

Week 14: April 28, 2015

Topics:
- Putting it all together; Work on Final Proposals
- Final Proposal Due no later than May 8th, 2015 at 11:59 PM.
- Internal Peer Review Process

X. Americans with Disabilities Statement

Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance. Instructors may not provide accommodations without supporting documentation from the UH Center for Students with Disabilities.

XI. Bibliography

Recommended Websites.

- Boston College Graduate School of Social Work NIH Grant Directory: www.bc.edu/swnihdirectory
- Center for Disease Control and Prevention (CDC): http://www.cdc.gov/
- Changing Minds Website List of Psychology Theories (with hyperlinks to descriptions) http://changingminds.org/explanations/theories/a_alphabetic.htm
- Council on Social Work Education http://www.cswe.org/
- Foundation Center http://foundationcenter.org/
- National Association of Social Workers http://www.naswdc.org/
- National Center on Minority Health and Health Disparities http://ncmhd.nih.gov/
- National Institutes of Health http://www.nih.gov/
- National Institutes of Health Office of Extramural Research http://grants.nih.gov/grants/oer.htm
- NIH Peer Review: http://grants.nih.gov/grants/peer_review_process.htm#scoring2
- National Science Foundation http://www.nsf.gov/
- Social Work Research Network: http://www.bu.edu/swrnet/
Society for Social Work and Research
http://www.sswr.org/
Sociological Theories and Perspectives http://www.sociosite.net/topics/theory.php
Southwest Alternate Media Project http://www.swamp.org/
University of Twente (Netherlands) Alphabetic List of Theories (with hyperlinks to descriptions)
http://www.utwente.nl/cw/theorieenoverzicht/Alphabetic%20list%20of%20theories/
US Census Bureau: http://www.census.gov/
US Census Bureau American FactFinder:
Services, Office of Minority Health: http://www.omhrc.gov/