

PHARM 5020
Research Design and Scientific Writing
Fall 2020

CLASS DAYS and TIME: Fridays, 9:00 – 11:00 and variable as necessitated by scheduling complications

CLASSROOM: Microsoft Teams

COURSE FACULTY: Charles P France (Director), Gregory T Collins, April L Risinger

OFFICE LOCATION and HOURS: By appointment: virtual or 2.209B (CPF), 2.233B (GTC), 5.209S (ALR)

EMAIL: france@uthscsa.edu, collins@uthscsa.edu, risingera@uthscsa.edu

TELEPHONE: CPF 210 567-6969 (office) 210 415-0388 (mobile) GTC 210 567-4199 (office)
210 609-5881 (mobile) ALR: 210 567-6267 (office) 210 213-5019 (mobile)

READ THIS DOCUMENT CAREFULLY
YOU ARE RESPONSIBLE FOR ITS CONTENTS

COURSE DESCRIPTION AND OBJECTIVES

This course will provide students the opportunity to develop skills in scientific writing and the presentation of research results while emphasizing learning-by-doing-and-redoing. Students are required to write every week with the capstone project comprising a grant application defended in class. Classes including lecture, discussion, editing, as well as critique and revision of student writing by peers, the Course Director and other faculty. Topics to be covered include the following: 1) fundamentals of writing clearly; 2) principles of revision; 3) effective presentation of data; 4) fundamentals of oral presentations; 5) writing and presenting to the appropriate audience; 6) developing hypotheses and specific aims; 7) writing significance and innovation sections; 8) choosing appropriate methods for the experimental approach; and 9) accepting and offering constructive critiques of one's own and others' writing.

Pre-requisites – None

Semester credit hours – 2

By the end of this course, each student should be able to:

- Read and determine gaps in the scientific knowledge of their field of interest
- Formulate a hypothesis and develop specific aims to test their hypothesis
- Formulate an experimental plan to address the specific aims of the proposal
- Speak and write more clearly and precisely
- Write a six-page NIH-format pre- or post- doctoral ("F") grant application
- Create a PowerPoint presentation and give a 15-minute oral defense of their proposal

COURSE ORGANIZATION

The main teaching modalities used in this course include:

- 1) Didactic lectures
- 2) "In class" discussion and editing/writing activities
- 3) Student oral presentations and discussions

Materials – No special materials are required for this course.

Computer Access – Students will use computers to work “in class” and for oral presentations

Reading Assignments – As listed on the class schedule

ATTENDANCE

Enrolled students are required to “attend” all the classes as detailed in the class schedule. Full-time video participation is required for attendance. **The class will not be recorded.** There is a deduction of two points for each unexcused absence. Please see grading policy.

TEXTBOOKS

Required: N/A

Recommended: The Grant Application Writer’s Handbook; John D Robertson, Stephen W Russell, and David C Morrison; www.grantcentral.com

GRADING POLICIES AND EXAMINATION PROCEDURES

Final proposal: 50 points

Timely submission of written assignments: 20 points*

Class participation: 10 points

Oral presentation: 10 points

Attendance: 10 points**

* 1 point deducted for each late assignment submission. 1 point/day deducted for late submission of final proposal

** 2 points deducted for every unexcused absence

Grading System

A = 90-100% B = 80-89% C = 70-79% F = ≤ 69%

REQUESTS FOR ACCOMODATIONS FOR DISABILITIES

In accordance with policy 4.2.3, **Request for Accommodation Under the ADA and the ADA Amendments Act of 2008 (ADAAA)**, any student requesting accommodation must submit the appropriate request for accommodation under the American with Disabilities Act (ADA, form 100) to his/her appropriate Associate Dean of their School and a copy to the ADA Coordinator. Additional information may be obtained at <http://uthscsa.edu/eo/request.asp>.

ACADEMIC INTEGRITY AND PROFESSIONALISM

Any student who commits an act of academic dishonesty is subject to discipline as prescribed by the UT System Rules and Regulations of the Board of Regents. Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, signing attendance sheets for another student, and any act designed to give unfair advantage to a student or the attempt to commit such an act. Additional information may be obtained at

<http://catalog.uthscsa.edu/generalinformation/generalacademicpolicies/academicdishonestypolicy/>

TITLE IX AT UTHSCSA

Title IX Defined:

Title of the Education Amendments of 1972 is a federal law that prohibits sex discrimination in education. It reads, "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

University of Texas Health Science Center San Antonio (UTHSCSA) Commitment:

UTHSCSA is committed to maintaining a learning environment that is free from discriminatory conduct based on gender. As required by Title IX, UTHSCSA does not discriminate based on sex in its education programs and activities, and it encourages any student, faculty, or staff member who thinks that he or she has been subjected to sex discrimination, sexual harassment (including sexual violence) or sexual misconduct to immediately report the incident to the Title IX Director. In an emergency, victims of sexual abuse should call 911. For non-emergencies, they may contact UPD at 210-567-2800. Additional information may be obtained at <http://students.uthscsa.edu/titleix/>

EMAIL POLICY

Instructors will be available by email for scheduling "virtual" office hour visits. Reading assignments will be distributed by email. Drafts will be circulated among faculty and students; Cindal Dominguez (dominguezc3@uthscsa.edu) or her designate MUST be in copy on all draft exchanges.

USE OF RECORDING DEVICES

Recording of lectures and other learning activities in this course by any means (e.g., video, audio) is permitted only if approved by the Director or required for compliance with ADA.

ELECTRONIC DEVICES

- *Computer/tablet use in class is allowed only for participating in classroom activities (e.g., viewing slides presented in lecture). Activities unrelated to course objectives, such as using a cell phone, texting, checking email are strictly prohibited and can be grounds for removal from the classroom (This phrase is no longer relevant given the "virtual" format of the course this year. I leave it here to remind you that I expect your full and undivided attention and if I have reason to believe that is not the case I will query you in class and/or dismiss you from the class – the latter will be counted as an absence. I do not mean to be punitive, but I want you to care enough about this course to pay attention. If that is not the case, please "drop" the class before we begin).*

CLASS SCHEDULE: Research Design and Scientific Writing (Fall 2020)

WEEK	Date	TOPIC	ASSIGNMENT	INSTRUCTOR
1	24 July Friday 9-11	Introduction, course overview, scientific communication, and what you are expected to accomplish this semester	#1 Read recent review and at least 12 important, original papers. Identify 2-3 questions in your field that you can answer. Write 3-page summary plus references (will become <i>Significance</i> and <i>Innovation</i>). Due 21 August	France, Collins, Risinger
2	31 July Friday 9-11	NIH grants: structure, format, goals, sections, submission, assignment, review, critique		France
3	7 August	No Class (Summer Practicum Presentations)		
4	14 August Friday 9-11	Significance and Innovation		France
5	21 August Friday 9-11	Hypotheses and Specific Aims	#2 Write 1-page Specific Aims – Draft due 27 August	France
6	28 August Friday 9-11	In class editing: Significance and Innovation, and Specific Aims		France, Collins, Risinger
7	4 September Friday 9-11	Student presentations of Specific Aims (15 min)		France, Collins, Risinger
8	11 September Friday 9-11	Student presentations of Specific Aims (15 min)		France, Collins, Risinger
9	18 September Friday 9-11	Rigor and Reproducibility Plagiarism	#3 Finalize Significance and Innovation and Specific Aims - Due 25 September	Koek France
10	25 September Friday 9-11	Research Strategy	#4 Write Research Strategy – Draft due 1 October	France
11	2 October Friday 9-11	Oral presentation skills In class editing: Research Strategy	#5 Draft of PowerPoint - Due 23 October	France, Collins, Risinger
12	9 October	No Class (Graduate Student Symposium)		
13	16 October Friday 9-11	Abstract/Summary and Narrative	#6 Write Abstract/Summary and Narrative – Due 30 October	France
14	23 October Friday 9-11	In class editing: Research Strategy, Abstract/Summary, and Narrative	#7 Revise Research Strategy, Abstract/Summary, and Narrative	France, Collins, Risinger
15	30 October Friday 9-11	Effective use of figures and PowerPoint Introduction to Revision		France
16	6 November	No Class		
17	13 November Friday 9-11	Oral presentations #1 (20 min)	#8 Submit final draft version of application to mentor 13 November	France, Collins, Risinger
18	20 November Friday 9-11	Oral presentations #2 (20 min)		France, Collins, Risinger
19	27 November	No Class. Application and critique returned to student	#9 Final version due 4 December	