

TSCI 5075 Scientific Communication

Fall 2019

CLASS DAYS and TIME:	Wednesdays (3:00 – 5:00 p.m.)
CLASSROOM:	LIB 2.015 Exception: LIB 2.011 (Oct. 2, 2019)
COURSE FACULTY:	Hai Rao, PhD (Course Director) STRF 261.4 9:00 a.m. – 5:00 p.m. raoh@uthscsa.edu 210-562-4149

READ THIS DOCUMENT CAREFULLY - YOU ARE RESPONSIBLE FOR ITS CONTENTS.

COURSE DESCRIPTION AND OBJECTIVES

This interdisciplinary course is designed to train participants to write effectively in all aspects of conducting patient-oriented clinical research.

Pre-requisites –None

Semester credit hours – 2

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

- Construct units of writing whose transparency, style and logical continuity allows instant clear comprehension.
 - Construct concise and informative titles
 - Develop clear, comprehensive abstracts for papers and grants
 - Understand how to write a structured manuscript for a scientific journal with an introduction, methods, results and discussion section
 - Learn how to use bibliographic tools, such as EndNote.
 - Write effective aims for a grant proposal and understand general concepts of grant proposal preparation.
 - Effectively present statistical data.
- Effectively apply the four-point rule to all forms of scientific writing.
 - What is the question/hypothesis? – Setting context in introductions, i.e., what is the big biological/medical question/problem?
 - Approach(s) to answering it? –Clear and concise method description.
 - What happened? – Presenting results.
 - What does it mean? – Thorough but complete discussion relevant to the big question.
- Create and give a scientific talk—applying the hour glass principle.
- Prepare effective posters and be effective presenters at meetings.
- Avoid plagiarism in written and oral communication.
- Be an effective reviewer.
- Be effective with media interactions (e.g., interviews).

COURSE ORGANIZATION

The main teaching modalities used in this course include:

- 1) Lectures
- 2) Peer Review of student composed and presented specific aims, abstracts and oral presentations.
- 3) Lecture and student presentation discussions requiring student active participation.

Materials – No special materials required for this course.

Computer Access –

Students are required to have a laptop computer that can connect to and operate over a wireless network.

Software required:

- Microsoft Office Suite (A personal copy of the latest version can be purchased at The UTHSCSA bookstore at student pricing with a student ID)

Laptops with an Apple based Operating System must be able to also operate using a Windows based Operating System. It may be necessary to purchase Windows (student pricing available at The UTHSCSA bookstore with a student ID) and virtualization software.

All laptops will connect to The UTHSCSA network via the HSCwave broadcast wireless connection. Authentication for wireless use is based on The UTHSCSA domain username and password.

Verification of proper operation **prior** to the start of class is highly recommended.

Assistance is available thru the IMS Service Desk

- Telephone: 567-7777
- E-mail (ims-servicedesk@uthscsa.edu)

Assistance is also available at the IMS Student Support Center (ALTC 106).

Reading Assignments – Reading assignments will be listed in the individual class section as applicable.

ATTENDANCE

Attendance at scheduled classes and examinations is crucial to meeting course objectives. Therefore, regular attendance in class is expected of each student.

- Attendance is defined as being present within 15 minutes after the scheduled beginning of the class and until 15 minutes before the scheduled ending of the class.
- Excused absences may be granted by the Course Director in cases such as formal presentations at scientific meetings, illness, or personal emergency.
- Excused absences are considered on an individual basis and require electronic communication with the Course Director to request an excused absence. The e-mail request to the Course Director for consideration of an excused absence must provide details regarding the circumstances and specific dates.
- It is expected that students will provide *advanced notice* of absence for scheduled events.
- If a student has excessive unexcused absences in a given course, they will automatically receive a grade of *unsatisfactory* unless *makeup* has been approved by the Course Director.
- Makeup of absences (both excused and unexcused) is allowed at the discretion of the Course Director.
- Allowable unexcused absences will be determined by the credit hours of the course as follows:

Course Semester Credit Hours	Allowable Unexcused Absences
3.0	3
2.0	2
1.0	1

TEXTBOOKS

There are no required textbooks for this course.

GRADING POLICIES AND EXAMINATION PROCEDURES

Satisfactory/Unsatisfactory – based on completion of assignments and class participation in peer review sessions.

Grading System

S = Satisfactory U = Unsatisfactory

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/eeo/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’s Commitment:

University of Texas Health Science Center San Antonio (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 on the basis of 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

Every student is issued a University “LiveMail” e-mail address and account at the time when the student first enrolls. As a standing University Policy, only the students' University “LiveMail” e-mail address shall be used for any electronic institutional communications of an official nature.

USE OF RECORDING DEVICES

Recording of any activities in this course by any means, e.g., video, audio, etc., is not permitted unless approved by the instructor or required for compliance with the American with Disabilities Act (ADA).

ELECTRONIC DEVICES

Use in class is un-restricted and encouraged during peer review of written documents.

TENTATIVE CLASS SCHEDULE
TSCI 5075
Scientific Communication
Fall 2019

Week	Date	Location	Class Topic	Instructor
1	Aug. 21, 2019	LIB 2.015	Course Introduction & Research Ethics	Rao
2	Aug. 28, 2019	LIB 2.015	Grant Writing – Emphasis on Aims	Sharp
3	Sept. 4, 2019	LIB 2.015	Keys & Models in Grant Writing	Rao
4	Sept. 11, 2019	LIB 2.015	Specific Aims Assignment Reviews	Rao
5	Sept. 18, 2019	LIB 2.015	Writing Effective Abstracts	Rao
6	Sept. 25, 2019	LIB 2.015	Media Relations	Sansom
7	Oct. 2, 2018	LIB 2.011	RefWorks & End Note	Gaspard
8	Oct. 9, 2019	LIB 2.015	Abstract Assignment Reviews	Rao
9	Oct. 16, 2019	LIB 2.015	Presentations – What Not to Do	Yew
10	Oct. 23, 2019	LIB 2.015	Posters – Preparation & Presentation	Gaspard
11	Oct. 30, 2019	LIB 2.015	Biosketch Assignment Review	Rao
12	Nov. 6, 2019	LIB 2.015	Publishing in Clinical Journals	Lancaster
13	Nov. 13, 2019	LIB 2.015	Introduction to Computing & Biomedical Research Resources at the UTHSCSA	Kirma
14	Nov. 20, 2019		No Class – Thanksgiving Week	
15	Nov. 27, 2019	LIB 2.015	How to Be a Brilliant Reviewer	Osmulski
16	Dec. 4, 2019	LIB 2.015	Student Presentations	Rao
17	Dec. 11, 2019	LIB 2.015	Student Presentations	Rao

Week: 1
Date: August 21, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Hai Rao
Topic: Course Introduction & Research Ethics
Learning Objectives – Participants will be able to:
1. Understand research ethics associated with communicating science. 2. Avoid plagiarism
Class Assignment: None
Readings: No advanced readings

Week: 2
Date: August 28, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): David Sharp
Topic: Granting Writing – Emphasis on Aims
Learning Objectives – Participants will:
1. Learn general concepts of grant preparation and tips on avoiding common mistakes. 2. Learn to prepare effective specific aims
Class Assignment: Specific Aim Assignment on CANVAS - (Due Date: Sept. 10, 2019)
Readings: No advanced readings

Week: 3
Date: September 4, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Hai Rao
Topic: Keys & Models in Granting Writing
Learning Objectives – Participants will:
1. Learn keys to grant writing and the use of logic models. 2. Learn the basic steps in grant writing.
Class Assignment: None
Readings: No advanced readings

Week: 4
Date: September 11, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Hai Rao
Topic: Specific Aims – Assignment Reviews
Learning Objectives – Participants will be able to:
1. Students will peer review written specific aims on student’s research project. 2. Learn how to be critical reviewers.
Class Assignment: None
Readings: No advanced readings

Week: 5
Date: September 18, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Hai Rao
Topic: Writing Effective Abstracts
Learning Objectives – Participants will:
1. Learn principles of an effective abstract.
2. In class revision of an abstract using principles embodied in the template.
Class Assignment: Abstract Assignment on CANVAS - (Due Date: October 8, 2019)
Readings: No advanced readings

Week: 6
Date: September 25, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Will Sansom
Topic: Media Relations
Learning Objectives – Participants will:
1. Learn about UTHSCSA policies regarding media interactions.
2. Learn tips on effective interaction's with the media to communicate student's science to the public.
Class Assignment: None
Readings: No advanced readings

Week: 7
Date: October 2, 2019 (3:00 - 5:00 pm)
Room: LIB 2.011
Instructor(s): Chris Gaspard
Topic: RefWorks & End Note
Learning Objectives – Participants will be able to:
1. Be introduced to the most advanced software for bibliography preparation.
Class Assignment: None
Readings: No advanced readings

Week: 8
Date: October 9, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Hai Rao
Topic: Abstract – Assignment Reviews
Learning Objectives – Participants will:
1. Peer Review abstracts written by students on their research project presented orally.
2. Go over biosketch preparation
Class Assignment: Biosketch Assignment on CANVAS - (Due Date: October 29, 2019)
Readings: No advanced readings

Week: 9
Date: October 16, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Renee Yew
Topic: Presentations – What Not to Do
Learning Objectives – Participants will be able to: 1. Learn effective methods for presenting scientific presentations. 2. Avoid common bad practices that detract from scientific presentations.
Class Assignment: Prepare a Resource and Environment section for a grant using student’s project.
Readings: No advanced readings

Week: 10
Date: October 23, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Chris Gaspard
Topic: Posters – Preparation and Presentation
Learning Objectives – Participants will be able to: 1. Prepare and effective poster for presentation. 2. Effectively present poster at a scientific meeting.
Class Assignment: None
Readings: No advanced readings

Week: 11
Date: Oct. 30, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Rao
Topic: Biosketch Assignment Review
Learning Objectives – Participants will: 1. Peer Review biosketchs (NIH style) written by students
Class Assignment: None
Readings: No advanced readings

Week: 12
Date: November 6, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Jack Lancaster
Topic: Publishing in Clinical Journals
Learning Objectives – Participants will be able to: Learn effective methods for preparation of scientific paper Learn to successfully negotiate with uncertainties associated with editorial policies and decisions.
Class Assignment: None
Readings: No advanced readings

Week: 13
Date: November 13, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Nameer Kirma
Topic: Introduction to Computing & Biomedical Research Resources at UTHSCSA
Learning Objectives – Participants will:
1. Identify research cores that may be useful in their research.
2. Explore Direct to Market Scientific communication.
Class Assignment: None
Readings: No advanced readings

Week: 14
Date: November 20, 2019 - No Class (Thanksgiving Week)

Week: 15
Date: November 27, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Pawel Osmulski
Topic: How to Be a Brilliant Reviewer
Learning Objectives – Participants will be able to:
1. Fairly and objectively review scientific papers.
2. Avoid conflict of interests in reviewing scientific papers.
Class Assignment: None
Readings: No advanced readings

Week: 16
Date: December 4, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Hai Rao
Topic: Student Presentations
Learning Objectives – Participants will:
1. Critique student oral presentations for strong and weak points.
Class Assignment: None
Readings: No advanced readings

Week: 17
Date: December 11, 2019 (3:00 - 5:00 pm)
Room: LIB 2.015
Instructor(s): Hai Rao
Topic: Student Presentations
Learning Objectives – Participants will be able to:
1. Critique student oral presentations for strong and weak points.
Class Assignment: None
Readings: No advanced readings