



# Scientific Communication

BTEC 5100

Fall 2020

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## **Instructor/Organizer:**

Dr. Chiquito Crasto, Center for Biotechnology and Genomics, 834-5448

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Classes will combine lectures and links to videos. These videos are lectures produced by experts at TTU in specific topics and supplement the material taught during lectures.

**Classroom:** Math 012. Wednesday 3:30 to 4.20 pm

**I. Class Description:** Students will be introduced to elements of communication in the STEM fields, through:

- Oral presentations oral presentations: prepared and extemporaneous
- Basic and advanced Microsoft PowerPoint skills
- Report writing, including writing precis of full length papers
- Creation of Bibliography and Citing References
- Writing Research Papers
- Poster Development and Presentation
- Resume (and cover-;letter) writing and interviewing skills

**II. Expected Learning Outcomes:** This class focuses on many different aspects of scientific communication. Not only must scientists research complex theories and hypothesis, they must effectively convey their results and conclusions of their research to advisors, supervisors, and to the public. Scientists must be able to synthesize published literature into clear, concise summaries for research proposals. This course aims to prepare the student for some of the forms of scientific communication which are utilized to communicate effectively in academic and professional careers. Upon successful completion of this class, the student will be able to:

- Research scientific literature databases and resources and construct a reference list of primary literature.
- Interpret, effectively recognize, and summarize key points from primary literature.
- Compose a clear, concise summary based on primary literature.
- Prepare and orally present a 10 minute PowerPoint presentation

- Prepare a resume and cover letter directed toward a potential market of interest.

**III. Methods for Assessing Expected Learning:**

A final letter grade will be determined by performance on the criteria below, with consideration given to performance of the class as a whole. A grade of “I” (Incomplete) will be awarded by the instructor prior to the end of the semester only when failure to complete the work has been due to causes beyond the student’s control and when class performance has been satisfactory. Texas Tech regulations require that a form explaining the reason for the Incomplete and the method to be used to make up the missed work be submitted, after being signed by both the student and instructor, to the Registrar. Incomplete grades that are not replaced by an A, B or C grade within one year are automatically replaced by an F.

<p><b><u>Writing Assignments:</u></b></p> <ul style="list-style-type: none"> <li>• References &amp; Paragraph</li> <li>• Resume &amp; Cover Letter</li> <li>• Research Summary</li> </ul>
<p><b><u>Presentations:</u></b> Includes formal 10 minute oral presentation</p>
<p><b><u>Participation:</u></b> Includes quality commentary, questions and discussion, attendance, following directions for use of Career Center and Writing Center resources, etc.)</p>

**IV. Student Accessibility:** OP 34.22: Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405.

**V. Academic Integrity:** It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and a high standard of integrity. The attempt of students to present as their own any work not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offenders liable to serious consequences, possibly suspension.

“Scholastic dishonesty” includes, but not limited to, cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, and any act designed to give unfair academic advantage to the student or the attempt to commit such and act.

**Cheating:** Dishonesty in examinations, quizzes, or homework assignments, illegal possession of examinations, the use of unauthorized notes during an examination or quiz, obtaining information during an examination from the examination paper or otherwise from another student, assisting others to cheat, alteration of grade records, illegal entry to or unauthorized presence in an office are instances of cheating.

**Plagiarism:** Offering the work of another as one’s own, without proper acknowledgement, is plagiarism; therefore any student who fails to give credit for quotations or an essentially identical expression of material taken from books, encyclopedias, magazines, internet web sites, and other reference works, or from the themes, reports or other writings of a fellow student is guilty of plagiarism.

**VI. Civility in the Classroom:** Students are expected to assist in maintaining a classroom environment that is conducive to learning. In order to ensure that all students have an opportunity to gain from time spent in class, unless otherwise approved by the instructor students are prohibited from using cellular phones or beepers or engage in any other form of distraction. Inappropriate behavior in the class room will result in a request to leave the class.

**VII. Attendance:** It is expected that you will **attend and participate in every scheduled class.** There are no makeup classes. If there is a reason for missing a class you must contact the instructor as soon as possible to make necessary arrangements to discuss the outcome of the absence. You may need to provide a note from your physician excusing your absence if you are absent from a class more than a day due to an illness.

**VII. Religious Holy Day:** By OP 34.19, a student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence

### **VIII. TTU Resources for Discrimination, Harassment, and Sexual Violence**

Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other [Title IX violations](#) are not tolerated by the University. Report any incidents to the *Office for Student Rights & Resolution*, (806)-742-SAFE (7233) or file a report online at [titleix.ttu.edu/students](http://titleix.ttu.edu/students). Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are: **TTU Student Counseling Center**, 806-742-3674, <https://www.depts.ttu.edu/scc/> (*Provides confidential support on campus.*) **TTU Student**

**Counseling Center 24-hour Helpline**, 806-742-5555, (*Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.*) **Voice of Hope Lubbock Rape Crisis Center**, 806-763-7273, [voiceofhopelubbock.org](http://voiceofhopelubbock.org) (*24-hour hotline that provides support for survivors of sexual violence.*) **The Risk, Intervention, Safety and Education (RISE) Office**, 806-742-2110, [rise.ttu.edu](http://rise.ttu.edu) (*Provides a range of resources and support options focused on prevention education and student wellness.*) **Texas Tech Police Department**, 806-742-3931, <http://www.depts.ttu.edu/ttpd/> (*To report criminal activity that occurs on or near Texas Tech campus.*)

## Citations & References

### Citations

Cite references in the text by name and year in parentheses. Citations with several references should be in chronological order from oldest to most recent.

Examples:

- This topic research has many different applications (Thompson, 2017).
- Thompson (2014) identified topic research...
- This topic research has been widely studied (Lockwood, 2015; San Francisco and San Francisco, 2017; Thompson, et al. 2017).

### References

Reference list entries should be *alphabetized by the last names of the first author* of each work.

**Books** - **Author, A. and A. Author (Year)** Name of Book. Name of Publisher. City, State of Publisher. #of pages in book.

Ex: **San Francisco, S. and S. Lockwood (2017)** The Best Book Ever! Texas Tech University Press. Lubbock, TX. 500 pp.

**Journals** - **Author, A. and A. Author (Year)** Name of article. Name of Journal Volume (Issue): page number(s).

Ex: **Lockwood, S., J. Tripathy and S. San Francisco (2017)** The best article ever. Greatest Journal Ever 1(1):1-20.

**Websites** - **Author, A (Year)** Name of website. Website address Date accessed.

Ex: **iParadigms (2017)** Turnitin. <http://turnitin.com/> Accessed 12 Aug. 2017

**Tentative Schedule: \*\*NOTE: Last class has been replaced with a Workshop of your choice taken at some point during the semester\*\***

<b>Date</b>	<b>Topic</b>	<b>Speaker</b>	<b>Assignments Due</b>
Aug. 29	<b>Introduction</b> <ul style="list-style-type: none"> <li>• Importance of Communication</li> </ul> <b>How to read a scientific paper</b> <ul style="list-style-type: none"> <li>• Structure of scientific paper</li> <li>• Discerning hypothesis, aim, etc.</li> </ul>	Dr. Susan San Francisco, Center for Biotechnology and Genomics	<i>Assigned reading for class discussion</i>
Sept. 5	<b>Interview skills</b>	Dr. Nicole Noble, TTU Career Center	
Sept. 12	<b>Writing a resume and cover letter</b>	Dr. Susan San Francisco	<i>References &amp; Paragraph for topic</i>
Sept. 19	<b>Writing an effective summary</b>	Dr. Kristin Messuri, TTU Writing Center	
Sept. 26	<b>“The Information Matrix”</b>	Dr. Cliff Fedler, Civil Environ Construct Engineering	
Oct. 3	<b>Presentation by Library Workshop Group</b>	Jessica Simpson and Innocent Awasom, STEM Librarians	
Oct. 10	<b>“Data Tell Me A Story”</b>	Dr. Luke LeFevre, Communication Training Center	<i>Edited resume &amp; cover letter due</i>
Oct. 17	<b>“Beyond 1-7-7”</b>	Dr. Luke LeFevre, Communication Training Center	
Oct. 24	<b>“Scientific messaging for the non-science, public audience”</b>	Dr. Asheley Landrum, College of Media and Communication	<i>Checked and corrected summary due</i>
Oct. 31	<b>Power Point Presentations</b>	students	<i>Group 1</i>
Nov. 7	<b>Power Point Presentations</b>	students	<i>Group 2</i>
Nov. 14	<b>Power Point presentations</b>	students	<i>Group 3</i>
Nov. 21	<b>THANKSGIVING HOLIDAY</b>		
Nov. 28	<b>Discussion</b>	Dr. Susan San Francisco	
Dec. 5	<b><u>No class</u>-replaced by Workshop attendance during semester</b>		

