

BIOL 3305-001; BIOL 3305-002; BIOL 3305-003 (Spring 2010 Syllabus)
SCIENTIFIC AND TECHNICAL WRITING

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Course Number, Section Number, and Course Title: BIOL 3305, Scientific & Technical Writing

Time and Place of Class Meetings:

BIOL 3305-001: TuTh 11:00 AM – 12:20 PM, LS 138

BIOL 3305-002: TuTh 2:00 PM – 3:20 PM, LS 138

BIOL 3305-003: MoWe 1:00 PM – 2:20 PM, LS 121

Description of Course Content: Study and application of the written and verbal communication skills involved in gathering, analyzing, and distributing scientific and technical information efficiently and accurately for specific scientific audiences. Can be used to satisfy the Technical Writing portion of English, Technical Writing, and Speech requirement. Prerequisite: BIOL 1441 and 1442, or permission from the instructor.

Student Learning Outcomes: Students will learn detailed aspects of the many facets of effective scientific communication. In addition to mastering effective communication, students will learn to evaluate the quality of science presentation available across various media from general public sources (blogs, news, etc.) to specialized outlets (scientific journals). We will cover a myriad of topics including style and sentence construction, common misuses of words, elements of composition, presenting oneself through curriculum vita and personal statements, different types of research and scientific literature (e.g., primary articles, essays, reviews, points and counterpoints, etc.), presentation of graphical information, professional presentation of scientific results (oral and poster), and become familiar with the scientific process from organization (or even conception) of a manuscript to its final publication.

Requirements: One of the major objectives of this course will be to understand scientific literature, thus it is imperative that you have a basic understanding of biological concepts, especially evolutionary biology. Some articles that we will read are technical; for these papers I will provide a brief lecture on the subject matter (and unfortunate jargon) to help get you up to speed. This is an upper-level biology course and I will assume that you have a working knowledge of the subject; however, having said that I do not want any students to hesitate to ask for clarification on any topics we discuss. Your grade will not depend on your knowledge of the specific details of biology that you will be exposed to while we are reading examples from different types of scientific literature.

Required Textbooks and Other Course Materials:

There will be no required textbook for this course; however, I have provided below a list supplemental reading. These books have been fundamental for organizing this course and in providing lecture materials. ALL course materials, including assignment descriptions (and due dates), lectures, announcements, supplemental materials, reading assignments, etc. will be made available through UTA WebCT. (<http://www.uta.edu/webct/>). You should check the course WebCT page regularly, as this will be your main portal for all course materials.

Also, I will provide you with access to a pdf file of a 24-page primer on scientific writing compiled by Dr. Marc Tischler of the University of Arizona titled "Scientific Writing Booklet". We will occasionally refer to this source.

Supplemental reading list:

Hacker, Diana. 1995. A writer's reference. St. Martin's Press, Boston.

Strunk, William, and E. B. White. 2000. The elements of style. Allyn and Bacon, Boston.

Pechenik, Jan A. 2001. A short guide to writing about biology. Longman, New York.

Descriptions of major assignments and examinations with due dates: This class is intended to be interactive and follow a 'workshop'-type format. Teaching writing is difficult under the best circumstances and is practically impossible through lectures exclusively.

You will be expected to participate in four types of assignments:

(1) **In-Class Participation:** this will consist of small writing, editing, and/or reading and discussion exercises that will occur during the class period. You will receive full credit for participating; thus, your attendance is required.

(2) **Graded Assignments:** these exercises will fall into two categories (a) in-class and (b) take-home. You will be notified of due dates at least one week in advance.

(3) **Oral presentations:** you will give a 10-minute oral presentation. Dates will be established early in the semester.

(4) **Writing assessment:** you will be required to write two summaries, both of which will be graded. These assignments will be compared to assess improvement throughout the course and your improvement (based on these two assignments) will be factored into your final grade. There will be no traditional final for this course.

All necessary assignment information will be provided on UTA WebCT.

An important note regarding WebCT: I will use WebCT as a class webpage to provide you with (1) lecture notes, (2) assignment instructions and due dates, and (3) required and supplemental reading assignments. **I will NOT use WebCT for its email functions or to receive assignments.**

Major topics (tentative schedule):

Week 1:	The major goals of scientific communication, plagiarism
Week 2:	Writing: review of grammar, parts of speech, punctuation, tense, and agreements
Week 3:	Basic sentence structure: fragments, clauses, and continuity
Week 4:	Research resources (library, ejournals, etc.), literature cited, and types of research (descriptive, experimental, etc.)
Week 5:	Reading: understanding and evaluating scientific literature, the components and objectives of primary and secondary articles (research reports, comments, summaries, essays, etc.)
Week 6:	Speech: giving an effective talk Popular science: blogs, evaluating science as presented to the public
Week 7:	'Advanced' writing: usage and style, using strong verbs, word misuses, transitions, etc.
Week 8:	'Advanced' writing: active versus passive voice, order of information (logical flow), etc.
Week 9:	'Advanced' sentence structure, complex writing devices, and tips
Week 10:	Paragraph structure; abstracts
Week 11:	CVs, resumés, personal statements
Week 12:	The publication process, writing scientific papers

Grading Policy: Your final grade will be calculated as follows:

In-Class Participation (exercises and oral participation)	40%
Graded Assignments: In-Class and Take-home	30%
Oral Presentation	10%
Writing assessment (two summaries)	20%

The grade breakdown will be as follows (I reserve the right to modify the grade breakdown as necessary, but will not do this without formal notification to the class):

90-100%	A
80-90%	B
70-80%	C
60-70%	D
< 60%	F

As a general rule I will deduct 15% of individual assignment scores for each day that an assignment is late up to 3 days (at which point a zero will be recorded as the score).

Attendance Policy: *Attendance will ultimately be vital to your grade*, as we will regularly do brief, writing exercises during class which will be turned in before the class is over (see description of major assignments above). There will likely be **at least** one non-scheduled assignment per week. Collectively these assignments will comprise 40% of your grade (participation). There will be no make-up opportunities for these participation assignments regardless of the reason for missed attendance (this is why these assignments are considered *participation* points); however, I will drop two assignments from computation of this portion of your grade. Occasionally attendance will count as a given day's in-class assignment grade.

Drop Policy: Please review the university's drop policies. Final day to drop classes is 2 April.

Important University Policies:

Americans With Disabilities Act:

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 92-112 - The Rehabilitation Act of 1973 as amended. With the passage of federal legislation entitled *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens.

As a faculty member, I am required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty of their need for accommodation and in providing authorized documentation through designated administrative channels. Information regarding specific diagnostic criteria and policies for obtaining academic accommodations can be found at www.uta.edu/disability. Also, you may visit the Office for Students with Disabilities in room 102 of University Hall or call them at (817) 272-3364.

Academic Integrity:

It is the philosophy of The University of Texas at Arlington that academic dishonesty is a completely unacceptable mode of conduct and will not be tolerated in any form. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. Discipline may include suspension or expulsion from the University.

"Scholastic 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 examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts." (Regents' Rules and Regulations, Series 50101, Section 2.2)

Student Support Services Available:

The University of Texas at Arlington supports a variety of student success programs to help you connect with the University and achieve academic success. These programs include learning assistance, developmental education, advising and mentoring, admission and transition, and federally funded programs. Students requiring assistance academically, personally, or socially should contact the Office of Student Success Programs at 817-272-6107 for more information and appropriate referrals.

Final Review Week:

A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabi. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. Classes are held as scheduled during this week and lectures and presentations may be given.

Drop for non-payment of tuition: Payment must be received by the term due date of 13 January, 2010 or your registration will be cancelled and your seat will be released. If your registration is cancelled for non-payment, you may re-register for classes only if seats are available.

Bomb Threats: If anyone is tempted to call in a bomb threat, be aware that UTA will attempt to trace the phone call and prosecute all responsible parties. Every effort will be made to avoid cancellation of presentations/tests caused by bomb threats. Unannounced alternate sites will be available for these classes. Your instructor will make you aware of alternate class sites in the event that your classroom is not available.

The University of Texas at Arlington has adopted the University email address as an official means of communication with students. Through the use of email, UT-Arlington is able to provide students with relevant and timely information, designed to facilitate student success. In particular, important information concerning registration, financial aid, payment of bills, and graduation may be sent to students through email.

After Hours Safety Escort

The Sam Mav Escort service provides a service to assist students, faculty, staff and campus visitors to reach their destinations after regular business hours. The hours of service are 7:00 p.m. to 1:00 a.m., Sunday through Saturday. 817-272-3381

MavMail:

All students are assigned an email account and information about activating and using it is available at www.uta.edu/email. New students (first semester at UTA) are able to activate their email account 24 hours after registering for courses. There is no additional charge to students for using this account, and it remains active as long as a student is enrolled at UT-Arlington. Students are responsible for checking their email regularly.