

Syllabus for BIOL 2300 – Spring 2010

Instructor: Dr. Walter Schargel

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Office Hours: M & W from 4:00 pm to 5:20 pm

Course Number, Section Number, and Course Title: BIOL 2300, SEC 002, Intro to Biostatistics

Time and Place of Class Meetings: LS 124, Monday and Wednesday 1:00 to 2:20 pm, Jan 19 – May 7.

Final Exam: Monday, May 10, 11:00 to 1:30 pm

Description of Course Content: Introduction to the collection, description, and analysis of data with statistical methods appropriate for biological sciences. Material covered with the associated book chapters are listed below:

Date	Topic	Reading
Jan 20-25	Introduction: Statistics and their use in biology	chapter 1
Jan 27-Feb 1	Description of populations and samples	chapter 2
Feb 3-15	Random sampling, probability, and the binomial distribution	chapter 3
Feb 17	Clinic I	
Feb 22	Midterm Exam 1	
Feb 24 – March 1	The normal distribution	chapter 4
March 3-8	Sampling distributions	chapter 5
March 10	Clinic II	
March 15-19	Spring break	chapter 6
March 22-24	Confidence intervals	
Mar 29	Clinic III	
March 31	Midterm Exam 2	
April 5-12	Comparison of two independent samples	chapter 7
April 14-19	Analysis of categorical data	chapter 10
April 21	Clinic IV	
April 26-May 28	Statistical principles of design	chapter 8
May 3-5	Clinic V; catching up if needed	
May 10	FINAL EXAM	

Outcomes: Students will become competent in techniques of simple statistical analysis appropriate for biological sciences. Students will be able to interpret data and draw scientific conclusions based on statistical analysis. These outcomes will be assessed using embedded questions in course exams.

Requirements: BIOL 1441 and BIOL 1442, or permission of the instructor and biology advisor.

Textbooks and Other Course Materials:

- 1) The class will follow the textbook: Samuels, M.L. and J.A. Witmer. 2003. Statistics for the Life Sciences, 3rd ed. Prentice Hall, Upper Saddle River, New Jersey. The textbook is recommended but it's **NOT a requirement for the class**.
- 2) You will need to use a computer with web-browser access to the internet to obtain data for some assignments.
- 3) Simple calculator for quizzes and exams (programmable or graphing calculators are not allowed).
- 4) Course lecture notes will be available through Phi Sigma, the graduate student's Biological Honor Society and also online (link will be provided first day of class). **These are highly recommended.**

Grading Policy: Grades are based on exams, homework assignments, and attendance according to the following breakdown. Following strict Biology-Department policy, there is no extra credit.

- 1) Homework Assignments: 30%
- 2) Midterm Examinations (2): 30%
- 3) Final Examination (comprehensive): 30%
- 4) In class quizzes: 10%

Attendance Policy: *Attendance is required.* Course material builds upon itself. Attendance policy will be enforced by providing credit for handing in and picking up assignments during class, random attendance polls and/or announced quizzes.

Make-up Policy: There will be no make-up exams unless an unanticipated and severe problem prevents attendance on the scheduled date, or unless the student is representing the University in an officially recognized activity for which University policy allows an excusable absence (e.g. intercollegiate athletics). Written documentation of circumstances is required for make-up exams and must be accompanied by a letter or note signed by a doctor (or UTA coach) stating that your absence was necessary. Make-up exams will be given only at times scheduled by the Biology Department for this purpose.

Homework Policy: Homework assignments will be announced in class and the due date will be assigned at that time. Homework assignments will always be due at the beginning of class on the due date. Late assignments will be penalized 10% per day. Students are responsible for being aware of due dates. Each student should complete his or her own homework reports. Copying from another student is not allowed and will be reported to Student Judicial Affairs as an act of academic dishonesty. Homework reports should be properly prepared: neatly written, and stapled together (if necessary) with your name on each page in case the pages are separated. The instructor and TAs may refuse to accept homework that is not properly prepared, and to turn it back without credit if it so poorly prepared that it cannot be graded. The instructor and TAs may also deduct points for minor aspects of inadequate preparation including failure to staple pages together. Homework must be submitted in class on the due date. Homework assignments submitted by email, turned into the biology office, or slipped under the door will not be accepted.

Grade Disputes: The instructor is willing to review the scoring of quizzes, homework assignments, and exams, but requests to do so must be made in writing and submitted

to the instructor in person (not via e-mail) within one week of the date that graded work was originally distributed in class. The written dispute must be accompanied by the entire quiz, assignment, or exam. The instructor reserves the right to re-evaluate the entire quiz, assignment, or exam.

Drop Policy: Withdrawal will be permitted for students making progress in the course who encounter unexpected difficulties. Students should be aware of University regulations regarding withdrawal and deadline dates. Notice that April 2 is the last day to drop classes for Spring 2010 semester.

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 January 13, 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.