

## BIOL 5319 HUMAN GENETICS

Spring 2011

**Instructor(s):** Trey Fondon

**Office Number:** LS B28

**Office Telephone Number:** 2-2081

**Email Address:** fondon@uta.edu

**Office Hours:** TuTh 5:00PM - 6:00PM, or by appointment

**Section:** BIOL5319-001

**Time and Place of Class Meetings:** TuTh 3:30PM - 4:50PM      LS 121

**Description of Course Content:** This course will enable students to comprehend the basic principles of genetics applied to human inheritance and disease, to interpret the research strategies aimed to identify and study the genes responsible for diverse functions and traits, as well as to assess the consequences of the genetic technologies in our society.

**Student Learning Outcomes:** Students will gain and demonstrate mastery of the following topics:

- the nature of mutations and their contributions to human variability and disease
- the basis of Mendelian and non-Mendelian inheritance
- heritability and risk factors
- the relationships among classes of congenital abnormalities and their genetic, developmental, and evolutionary origins
- genetic research methods
- population structure and its impact on genetic variation and research
- genetic technologies and their impact on mankind

**Requirements/Prerequisites:** Instructor's consent.

**Required Textbooks and Other Course Materials:** L.I. Held - Quirks of Human Anatomy

**Grading Policy:**

<b>Regular Examinations (2):</b>	<b>40%</b>
<b>Class Participation:</b>	<b>20%</b>
<b>Oral Presentation:</b>	<b>20%</b>
<b>Final Examination:</b>	<b>20%</b>

**Regular Examinations:** There will be two examinations during the semester and in aggregate they will constitute 40% of the course grade. Each examination will consist of problems, thought questions, and multiple choice questions. Answers to questions are to be grammatically correct and to employ appropriate genetic symbols and terminology, where appropriate.

**Oral Presentation:** Each student will make an oral presentation on a paper of his own selection from the primary peer-reviewed research literature on a human genetic trait or disorder. Papers/topics must be approved by the instructor by March 24. The duration of the presentation will be 20 minutes, and a question/discussion period will follow the presentation. The student will prepare sufficient copies of the paper and give them to the instructor for distribution to other class members no less than one week prior to the presentation. It will be the student's responsibility to verify compatibility of computers and projection equipment, if applicable. Presentations will be scored on content, accuracy, proper use and citation of non-original material, clarity, spelling, grammar, style, and overall effectiveness. All students will complete standardized questionnaires/evaluations of each presentation. Additional details regarding acceptable topics will be provided in class. The oral presentation will constitute 20% of the course grade.

**Final Examination:** In addition to the two regular examinations, there will be a comprehensive final examination with the same format as regular examinations. The final examination will constitute 20% of the course grade.

**Attendance Policy:** Attendance is required.

**Drop Policy:** Standard university drop policy will apply.

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities 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. According to the UT System Regents' Rule 50101, §2.2, "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."

**Student Support Services Available:** The University of Texas at Arlington has established a variety of programs to help students meet the challenges of college life. Support to students includes advising, counseling, mentoring, tutoring, supplemental instruction, and writing assistance. For a complete list of academic support services, visit the Academic Assistance resource page of the Office of Student Success Programs, [www.uta.edu/uac/studentsuccess/academic-assistance](http://www.uta.edu/uac/studentsuccess/academic-assistance). To help students address personal, academic and career concerns, individual counseling is also available. For more information, students are encouraged to contact Counseling Services [www.counseling.uta.edu](http://www.counseling.uta.edu) at (817) 272-3671 or visit a counselor in 216 Davis Hall.

**Electronic Communication Policy:** The University of Texas at Arlington has adopted the University "MavMail" address as the sole official means of communication with students. MavMail is used to remind students of important deadlines, advertise events and activities, and permit the University to conduct official transactions exclusively by electronic means. For example, important information concerning registration, financial aid, payment of bills, and graduation are now sent to students through the MavMail system. All students are assigned a MavMail account. ***Students are responsible for checking their MavMail regularly.*** Information about activating and using MavMail is available at <http://www.uta.edu/oit/email/>. There is no additional charge to students for using this account, and it remains active even after they graduate from UT Arlington.