

SYLLABUS
HUMAN GENETICS, BIOL 1318, Spring, 2006, JO 3.516 (TR 9:30-10:45)
Textbook: *Human Genetics: Concepts and Applications*, 7th ed., by Ricki Lewis

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Genetics is the study of biologically inherited traits. Each species of living organisms is united by a common set of inherited traits, observable characteristics that set it apart from all other species of organisms. In this course, we will address three major questions. What is the chemical nature of the genetic material? How is the genetic material transmitted? And what does it do? These questions will be examined and discussed from a genomics perspective.

Five exams will be given throughout the semester. The final grade will be based on the average of four of the five exams. **No make-up exam will be given for absence from an exam other than for official university business or illness (both require either a written university authorization or a physician's statement). All hand-held electronic devices, including cell phones, must be stored away during exams. Lecture notes will be posted on the course web site. Additional material will be presented in the lectures and, therefore, it will prudent for students to attend and participate in the lectures and to read the assigned textbook chapters.**

LECTURE SCHEDULE

LECTURE	DATE	TOPIC	CHAPTER
1	10 Jan	Overview	1
2	12 Jan	Cell Structure and Function	2
3	17 Jan	Development	3
4	19 Jan	Mendelian Genetics – Part 1	4
	24 Jan	EXAM 1	1-4
5	26 Jan	Mendelian Genetics – Part 2	5
6	31 Jan	Sex and Inheritance	6
7	2 Feb	Multifactorial Traits	7
8	7 Feb	The Genetics of Behavior	8
	9 Feb	EXAM 2	5-8
9	14 Feb	DNA Structure and Replication	9
10	16 Feb	Gene Action and Expression	10
11	21 Feb	Control of Gene Expression	11
12	23 Feb	Gene Mutation	12
13	28 Feb	Chromosomes	13
	2 Mar	EXAM 3	7-13
14	14 Mar	Allele Frequencies – Part 1	14
15	16 Mar	Allele Frequencies – Part 2	15
16	21 Mar	Human Origins and Evolution	16
17	23 Mar	Genetics and Immunity – Part 1	17
18	28 Mar	Genetics and Immunity – Part 2	17
	30 Mar	EXAM 4	14-17
19	4 Apr	The Genetics of Cancer	18
20	6 Apr	Genetic Technologies	19
21	11 Apr	Genetic Testing, Counseling and Therapy	20
22	13 Apr	Reproductive Technologies	21
23	18 Apr	Genomics	22
	20 Apr	EXAM 5	18-22