

THE UNIVERSITY OF TEXAS AT SAN ANTONIO

SCHEDULE-- BIOSOCIAL GENETICS (BIO 3083)

Paul H. Rodriguez, Ph.D.

FALL 2007

OFFICE: Science Bldg. 4.02.38

MON. & WED 4:00 - 5:15 P.M.

Office Phone: 458-5932

COURSE: HSS BLDG., Room 2.02.04

DATES	LECTURES AND TOPICS	ASSIGNMENTS
AUGUST 22	INTRODUCTION & Overview of Human Genetics, Society & Modern Concepts	Chapter 1 & Assigned Literature
AUG. 27 & 29	Human Diversity & Evolution	Chapter 16
SEPT. 03	LABOR DAY	
SEPT. 05, 10 & 12	Cell Division, Human Reproduction & Birth Control Technologies	Chapters 2, 3 & Literature
SEPT. 17 & 19	Genetics of Human Diseases: Pedigrees, Probabilities & Data Analyses	Chapters 4 & 5
SEPT. 24	Dominant & Recessive Human Diseases	Assigned Literature
SEPT. 26, OCT. 01 & 03	Sex - Linked Diseases, Multifactorial & Complex Traits	Chapters 6, 7, 8 & Assigned Literature
OCTOBER 08	FIRST HOUR EXAM [20%]	Chapters 1-6, 7 & Assigned Papers
OCT. 10 & 15	Human Chromosomes & Abnormalities	Chapter 13
OCT. 17 & 22	Overview Molecular Genetics, Function & Technology	Chapters 9, 10, 11 & 19
OCT. 24, 29 & OCT. 31	Biochemical Genetics & Inborn Errors of Metabolism	Chapter 12 & Assigned Literature
NOVEMBER 05	SECOND HOUR EXAM [20 %]	Chapters 9 - 13, 19 & Papers
NOV. 07, 12, & 14	Genetics of Hemoglobin & Associated Disorders	Chapter 12 (Part) & Assigned Literature

DATES	LECTURES AND TOPICS	ASSIGNMENTS
NOV. 07 to DEC. 03	TERM PAPER PRESENTATIONS	As Assigned
NOV. 19 & 21 & 26	Mutations, Analyses & Cancer	Chapter 12, 18 & Assigned Literature
NOVEMBER 22-25	THANKSGIVING HOLIDAYS	R & R
NOV. 26 & 29	Genes in Populations, Screening, Therapy & Future Perspectives	Chapter 20 & 22
NOV. 29 & DEC. 03	PAPER PRESENTATIONS [30 %]	As Assigned
DECEMBER 07 [FRIDAY]	FINAL EXAM [30 %] [1:30 P.M. to 4:00 P.M.]	Material Since Last Exam; Class Papers

TEXT: Lewis, Ricki. 2007. Human Genetics: Concepts & Applications. 7th Edition. McGraw-Hill Higher Education, New York, New York. 448 p.
+ Appendix

REFERENCES:

1. **Baer, Adela S.** 1977. Heredity and Society: Readings in Social Genetics. 2nd Edition. Macmillan Publishing Company, New York. 460 p.
2. **Cummings, Michael R.** 2006. **Human Heredity: Principles and Issues.** 7th Edition. Brooks / Cole and Thomson Learning, Belmont, CA 457 p.
3. **Hartl, D.L.** 1983. Human Genetics. Harper & Row, Publishers, Inc., New York. 605 p.
4. **Mange, A. P. & Elaine J. Mange** 1980. Genetics: Human Aspects. Saunders College/ Holt, Rinehart & Winston, Philadelphia. 675 p.
5. **Stein, G. J.** 1977. Biosocial Genetics: Human Heredity and Social Issues. Macmillan Publishing Co., New York. 579 p.
6. **Stein, G. J.** 1989. The New Human Genetics. Wm. C. Brown Publications, Dubuque, IA. 499 p.

ADDITIONAL READINGS: Recent or Current Publications

EXAMS AND GRADING:

1. TYPE EXAMS: **MULTIPLE CHOICE & ESSAY: INCLUDING**
Problems, Short answers and Discussion
2. VALUE EXAMS: **2-HOUR EXAMS** (at 20% per Exam) equals 40%;
TERM PROJECT (Oral Presentation at 15 %, and written
at 15 % Paper) = 30 %;
FINAL EXAM Equals 30%.
3. GRADING: 90 % or above required for A
80 % to 89 % required for B
70 % to 79 % required for C
60 % to 69 % required for D
59 % and Below = F

**[NO MAKE-UP EXAMINATIONS AND/OR PROJECTS WILL BE
ALLOWED UNLESS A VALID WRITTEN EXCUSE IS PROVIDED]**

SUMMARY OF COURSE :

The course will focus on recent and current developments in **Human Genetics**, genetic diseases and social issues. The following concepts, principles and topics will be emphasized:

- **Overview of modern genetics, concepts and society**
- **Basic principles in Human Diversity and Evolution**
- **Recent or current experimental approaches including:**
 - [1] **Cellular division, control and technologies in Human Reproduction**
 - [2] **Genetic Diseases, Patterns of Inheritance and Data Analyses**
 - [3] **Sex linked traits and Diseases**
 - [4] **Polygenic Inheritance and Complex Characteristics**
- **Human Chromosomes and Aberrations**
- **Molecular Genetics, technologies and applications**
- **Biochemical Genetics and Inborn Errors of Metabolism**
- **Genetics of Hemoglobin and Associated Genetic Diseases**
- **Mutations and Mutagenesis**
- **Genes in Populations, Screening, Counseling and Future Perspectives**