

GENETICS 603

Fall 2016

INSTRUCTOR: Clint Magill

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TEXT: If you already own a Genetics text, it should be fine. If not and you want one, there are lots of good texts- the two that generally follow the same order as class are "Genetics, The Continuity of Life" by Fairbanks and Andersen and iGenetics, a Molecular Approach by Russell.

Ancillary: We will take considerable advantage of resources available on the internet, including sites such as the [_HREF="http://www.ncbi.nlm.nih.gov/](http://www.ncbi.nlm.nih.gov/), A home page for this course is available at: <http://www.tamu.edu/faculty/magill/gene603/> It has outlines of most lectures and copies of all old exams. A series of Powerpoint slides with audio links made for the 'distance' students is available via the eCampus portal <http://ecampus.tamu.edu>

GRADES: Your grade will be determined by your performance on 3 in-class exams, and a comprehensive final, all weighted equally. Exams are scheduled on Friday at 4 pm, a time generally available for all. Homework assignments will provide opportunities for sufficient bonus points to make up at least one unsatisfactory exam. If your final score (exam average plus homework points) is more than 1 standard deviation above the class exam average you are guaranteed an A and if within 1 standard deviation, you cannot make less than B.

GENE 603 is [ADA](#) and Aggie [_HREF="http://www.tamu.edu/aggiehonor/](http://www.tamu.edu/aggiehonor/) compliant.

<u>Week/Dates</u>	<u>Topics</u>	<u>Fairbanks---Russell</u>	
1/Aug 29-Sept 2	DNA Structure and Replication; Eu- and Prokaryotes; Transcription, & Processing	Ch 2 Ch 3	Ch 2 & 3 Ch 5
2/Sept 5-9	Translation, Genetic Code; Protein function	Ch 4	Ch 6
3/Sept 12 -16	Mutation; Mutagens and Repair Systems	Ch 5	Ch 19
4/Sept 19-23	Pathways; Gene Function, Bacterial Genetics	Ch 6	Ch 4
5/Sept 26-30	Pro and Eukaryotic Regulation, RNAi	Ch 7 & 8; Ch 16 & ½ of 17	

Friday, September 30 2: EXAM 1; 4 pm-(or as arranged)

6/ Oct 3-7	Recombinant DNA Technology	Ch 9	Ch 7-9
7/Oct 10-14	Chromosomes; Meiosis and Mitosis, Mendel	Ch 10-12	Ch 1 & 10
8/Oct 17-21	Interactions, Sex-related, Imprinting, Mapping	Ch 13-15	Ch 11& 12
9/Oct 24-28	Gene Fine Structure, Chromosome # Aberrations	Ch. 16 & 17	Ch 13 & 14 Ch 21

Friday, October 28: EXAM 2; 4pm-

10/ Oct 31-Nov 4	Structural aberrations, Cytoplasmic Inh.	Ch 18	Ch 21 & 15
11/Nov 7-11	Population Genetics & Evolution	Ch19 & 21	Ch 22 & 24
12/Nov 14-18	Quantitative Inheritance, Heritability	Ch 20	Ch 23
13/Nov 21	Transposons	Ch 22 & 23	Ch 20

NOV 23 (Wednesday) Reading Day; Nov 24-27: Thanksgiving break,

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14/Nov 28-Dec2	Developmental Genetics & Immunogenetics	Ch 25	Ch 17
Friday, December 2 EXAM 3; 4 pm			
15/Dec 5 & 7	CRISPRS & Hot topics	Ch 26 & 27	NA

Monday, DECEMBER 12, FINAL EXAM: 8-10 AM (in regular classroom)