

2. Come prepared answer a question based on one of the following chapters in Reilly.
  1. Abraham Lincoln: Did He Have Marfan Syndrome?
  6. Cold Hits: The Rise of DNA Felon Databanks
  8. Wrongful Birth: What Should the Doctor Know?
  13. Genetically Modified Organisms: The Next Green Revolution?
  21. Privacy: Who Should be Able to Know Your Genes?

You will be asked to discuss a particular chapter, not choose the chapter you want to discuss.

3. Make sure you understand and can explain the more important aspects of the laboratory experiments you have done so far. Note, you will not be tested on this Wednesday's laboratory since only half of you will have completed it.
4. Be prepared to do problems that are similar to the ones Dr. Petty did in lecture to identify possible criminals or parents.
5. Be prepared to discuss the major differences of opinion raised during discussion of one of the topics on COW. You will be given a choice of three topics.
6. Know how to analyze a life science-problem from a scientific, legal, and ethical perspective.

Logistics:

1. Bring a blue book
2. You will have one hour to complete the exam
3. The exam will be divided into sections. In each section, you will have some choice, i.e. you will not have to answer every question.
4. There will be:
  - short identification
  - short answer questions
  - problems
  - one essay questions that will require drawing together scientific, legal, and ethical concepts

**UC 260**  
**Law, Ethics and the Life Science**  
**Study Guide, Exam #1**

1. Be prepared to provide a brief definition for and, when applicable, examples of the following:

$\mu$ l	Eugenics	Paternity index
45 CFR 46	Eukaryotic cell	Paternity testing
4 <sup>th</sup> Amendment	Executive order Exons	Polymerase chain reaction
5 <sup>th</sup> Amendment	Forensic science	Phenotype
Adenine	Gel electrophoresis	Plasmid
Adversary system	Gene	Polymer
Allele	Gene expression	Polymerase (PCR)
Allele frequency	Gene mutation	Polymorphisms
Annealing	Gene pool	Prenatal diagnosis
Applied ethics	Gene therapy	Primers
Base pair	Gene translation	Profile
Central Dogma	Genomics	Protein
Centromere	Genome	Probe
Chelex solution	Genotype	Recombinant DNA technol.
Chip-based DNA technol.	Germ cell	Regulatory law
Chromatin	Guanine	Restriction enzyme
Chromosome	Heterozygous	RFLPs
Civil Law	Hippocratic Oath	RNA
Cladogram	Human Genome Project	Saline solution
Cloning	Identity testing	SNPs
CODIS	Introns	Social contract
CODIS Loci	Loading dye	Somatic cell
Codon	Locus	Southern Blot Test
Constitutional Law	Lord Mansfield's Rule	Stakeholder
Court-made law	Mandatory testing	Statutory Law
Criminal Law	Microcentrifuge tube	STR (STRPs)
Cystic Fibrosis	Moral reasoning	Telomere
Cytosine	Mutation rate	Thiamine
Denaturing	Mutations (types of)	Transcription
Dilemma	MtDNA	Transgenic plant
DNA	Mitochondrial "Eve"	Utilitarianism
DNA Amplification	NGRI	Vector
DNA repair	Noncoding portion	VNTRs
DNA replication	Nuremberg Code	Watson-Crick Base Pairs
Double Helix	Normative ethics	Wildtype allele
	Nuclear DNA	