## Forensic Science - Law and Ethics

| Why is it called forensic science? | From Latin “forensis” which means “Of the Forum”  
|                                 | Forum = Location where scholars and politicians would meet to discuss and debate various issues including court and criminal cases  
|                                 | Because use the philosophy of all science . . . The “Scientific Method” to solve problems |
| **How is forensic science different than “regular” science?** | **Science**  
|                                 | Publish results in scientific journal for others to review  
|                                 | If the results incorrect, go back and try again  
| **Forensic Science** | Present results in court to a judge/jury  
|                                 | Results not necessarily reviewed or they are reviewed by the “other side”  
|                                 | If results incorrect, innocent person can be wrongly convicted - prison or death possible |
| **How does forensic science work?** | **Criminal Case occurs**  
|                                 | Lawyers: “This is what happened . . .”  
|                                 | “How do they know?” = Forensic Science  
|                                 | Forensic science finds and analyzes the evidence based upon scientific principles  
|                                 | Scientists interpret the evidence - prosecution vs defense  
|                                 | How reliable is the evidence?  
|                                 | To what extent can the evidence be trusted?  
|                                 | How common is procedure used to analyze evidence  
|                                 | Is procedure widely accepted by scientific community?  
|                                 | Is procedure accepted by “common” person in jury - must convince jury of validity of the science when they do not have a science background  
|                                 | DNA considered very reliable  
|                                 | Prosecution and Defense each present their evidence to “make their case”  
|                                 | Evidence presented in court  
|                                 | Experts  
|                                 | Eyewitnesses  
|                                 | Police  
|                                 | Judge or jury gives a verdict based on information presented  
|                                 | Presumption of innocence until proven guilty beyond a reasonable doubt  
|                                 | Prosecution - must prove guilt beyond a reasonable doubt  
|                                 | Defense - does NOT have to prove innocence  
|                                 | Creates reasonable doubt by picking apart prosecution’s case |
| **What does forensic science do?** | 1. Reconstruct past events  
|                                 | Reconstruct sequence of events to build a “story” about what happened  
|                                 | 2. Link suspect with crime scene  
|                                 | 3. Decide charge in a case  
|                                 | Murder or accident  
|                                 | Dead baby dumpster - premature death not murder  
|                                 | Body on train track - dead before train ran over = murder |
### What are ethics?
- Ethics is the study of ideal human behavior and the principles which guide that behavior
- The philosophy of ethics deals with moral issues of right versus wrong behaviors and good versus bad outcomes and consequences
- Morals are specific and generally agreed upon standards of conduct considered societal norms
- The principles of morality provide the practical foundation for ethics

### Why are ethics important to forensic scientists?
- In science, experimentation is commonly performed in a closed setting without the transparency that could allow for a check and balance on proper scientific methods.
- Unethical scientists can use this secrecy to their advantage to support their own agenda rather than to promote truth and knowledge
- Evidence often used to determine the fate of an individual - determines guilt or innocence
- Ethics is VITAL to ensuring justice is served

### What are some common ethical standards for forensic scientists to follow?
1. Accurate representation of qualifications
2. Maintain the integrity of the evidence
3. True and accurate representation of data
4. Clear and complete documentation
5. Impartiality of the examination
6. Impartiality of testimony
7. Confidentiality and disclosure
8. Reporting of colleagues who violate the profession's ethical code.

### What are some common ethical issues for forensic scientists?
1. Misrepresenting qualifications or credentials
2. Pressured testimony (adrenaline factor)
3. Omitting unfavorable information
4. Lying about the knowledge of the evidence planted
5. Falsifying the data or notes
6. Biased examination

### Why mishandle, manipulate, or misrepresent evidence?
- Own personal agenda
- Pressure from agencies in control of crime lab - most crime labs controlled by government agency so would be on "prosecutors" side
- ????

### Conclusion
- Physical evidence in criminal cases has a lot of weight in court
- Jury heavily influenced by results of forensic evidence and expert witnesses
- The evidence should be allowed to accurately speak for itself free of error and/or manipulation
- The manipulation, mishandling, and misinterpretation of forensic evidence can have damaging effects on criminal cases and the lives of others
- Forensic scientist must be competent in their duties
- Forensic scientist must be of good moral and ethical character
Forensic Science: Law and Ethics Questions

1. Why is it called forensic science?

2. What is the main difference between forensic science and other sciences?

3. What is the job of a forensic scientist in a criminal case?

4. Why is it important that evidence can be “trusted”?

5. What can/do forensics scientists do to increase the reliability of the evidence?

6. Who presents evidence in a criminal court case?

7. How is the job of the prosecution different than the job of the defense in a criminal case?

8. Whose job do you think is “harder” and why?

9. Who decides the verdict in a criminal case?

10. Explain a challenge that expert witnesses face when presenting scientific information to a jury?
11. What are ethics?

12. Why should forensic scientists be of good moral and ethical character?

13. Explain at least 4 ethical standards and their benefits that forensic scientists are expected to follow.

14. Explain 3 ways that forensic scientists can mishandle, manipulate, or misrepresent the evidence and the most likely consequences of each.