Scientific Applications in Justice  
Spring Session 306 - 2011  

Prof. Michael Emanuel  

This is the second half of a two-term course designed to present to the non-scientific student the techniques, skills and limitations of the modern crime laboratory.  

This term 306, the student is introduced to the material not covered in 305 and in addition will be required to submit a research paper on a significant case in the field of Forensic Science.  

Once again the course will demonstrate how the scientific, law enforcement and legal communities must work together if a just and logical conclusion is to be reached. The written research paper will involve teamwork, organization and a formal presentation.  

Students, as part of the course requirements, are required to read the Star Ledger daily. Important Forensic Cases and new developments appear on a daily basis. You may be tested on this information.  

Required Text:  

Safferstein, Richard, *Criminalistics, an Introduction to Forensic Science*  

*Note:* The text is available at the University Book Store. There will also be several class handouts and students are responsible for all materials contained therein as well.  

Suggested Readings:  

Lifflander, Mathew L., *Final Treatment: The file on Dr. X.* New York; W.W. Norton & Co., 1978  


Helpera, Milton – *Autopsy*  

Baden, Michael – *Unnatural Deaths, Confessions of a Medical Examiner*  

Course Requirement  

1) Mid Term Exam  
2) Research Paper & Presentation  
3) Case Study Exam  

50%  
30%  
20%
SUGGESTED CASE
1. *DR. X. JASCALAVICH 1976
2. Coppolino - Late 60's
3. *Sam Shepard - Cleveland - Late 50's
4. Lindberg Kidnapping
5. J. Kennedy - 1963
6. Marilyn Monroe
7. Natalie Wood
8. Jim Jones
9. Charles Manson - Sharon Tate - Helter Skelter
10. Trooper Mesertian/ Topolesky
11. *Kuklinski ( Ice Man )
12. Zarinsky
13. Calandrelli - 1975 Trial
14. *Trooper Lamonico
15. Dr. Sugar
16. Bundy
17. Marshall/Blind Man
18. Hall-Mills
19. Dr. Jeffrey MacDonald/Fatal Vision
*Required

QUESTIONS THAT SHOULD BE ADDRESSED IN YOUR PAPER. ALL SOURCES SHOULD BE FOOTNOTED!
Following questions to be used as a guide:
1. Evidence - Types - Seized properly?
2. Investigation - Flawed
   Thorough
3. Was forensic evidence reliable?
4. Was the case prosecuted properly?
5. Was the accused defended properly?
6. Was the Judge biased?
7. Was there undue publicity - Press - Yellow Journalism?
8. Was the verdict just?
9. What were the repercussions from the case?
   How do they relate to society?
   For the people?
   Damaging to the people?
   Legal standpoint?
   Benefits to society?

A. Case Research Paper must be thorough and properly documented. POINTS WILL BE DEDUCTED IF NOT PROPERLY FOOTNOTED. Cite all sources. Make sure to include a Bibliography.

B. Oral Presentation must be a minimum of 45 minutes. No more than 60 minutes. Preferably employ entire group - use creativity - visual aids are encouraged - diagrams, slides, video, etc. In the past some groups have done interview formats or dramatic re-enactments, even satirical presentations are permissible.

Important that assigned group captains make sure that the entire group is involved. If any group member is absent or does not show for meetings, it is imperative that I know early in the project! These projects, oral and written, are not to be done by 2 or 3 people. You will be graded as a group, there is no excuse except documented sickness. Any individual in a group, not participating will be severely penalized by a reduction in final grade as I deem appropriate. Students are required to read the Star Ledger daily. Articles dealing with Forensics will be discussed and the class will be quizzed.
COURSE OUTLINE

Thurs. 20 Jan.  Chapter 1, Introduction, pg. 3-24

Thurs. 27 Jan.  Chapter 2, Crime Scene pg. 38 – Case Selection 27-50

Thurs. 3 Feb.  Chapter 3, Physical Evidence pg. 59-81

Thurs. 10 Feb.  Chapter 4, Glass/Soil Botanical pg. 93-115

Thurs. 17 Feb.  Chapter 17, Firearms/Toolmarks/Impressions, pg. 417-447

Thurs. 24 Feb.  Chapter 14 & 15 Arson/Explosives, pg. 353-386

Thurs. 3 Mar.  Chapter 11, DNA pg. 265-290

Thurs. 10 Mar.  EXAM

Thurs. 17 Mar.  SPRING BREAK

Thurs. 24 Mar.  1<sup>st</sup> Presentation
                2<sup>nd</sup> Presentation

Thurs. 31 Mar.  3<sup>rd</sup> Presentation
                4<sup>th</sup> Presentation

Thurs. 7 Apr.  5<sup>th</sup> Presentation
                6<sup>th</sup> Presentation

Thurs. 14 Apr.  7<sup>th</sup> Presentation
                8<sup>th</sup> Presentation

Thurs. 21 Apr.  9<sup>th</sup> Presentation
                10<sup>th</sup> Presentation

Thurs. 28 Apr.

Thurs. 5 May  FINAL

NOTE: This outline is subject to change. THE STUDENT REMAINS RESPONSIBLE FOR THE COURSE CONTENT LISTED IN THE OUTLINE.