

RUTGERS UNIVERSITY
Faculty of Professional Studies
Administration of Justice

Scientific Applications in Justice – 305 - Spring 2011

Prof. Michael L. Emanuel

This is the first half of a two-term course designed to present the various specialties that exist under the larger discipline, FORENSIC SCIENCE.

In studying the natural sciences and how they apply to Forensics, the course will demonstrate, in the most simple terms, the techniques, skills and limitations of the modern crime laboratory.

The course will provide practical information for Administration of Justice and Pre-law Majors, as well as practitioners and students interested in law enforcement careers.

At the completion of the course, the student will fully appreciate how the scientific, law enforcement, and legal communities must work together if a just and logical conclusion is to be reached.

Required Text:

Safferstein, Richard. Criminalistics, an Introduction to Forensic Science.
New Jersey: Prentice-Hall, Inc., 1987 (10th Edition)

Note: The text is available at the University Bookstore. 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. Morton & Co., 1978

Henry Lee's Crime Scene Handbook
Timothy Palmbach & Marilyn T. Miller
Academic Press Inc., July 2001

Baden, Michael M., Unnatural Death - Confessions of a Medical Examiner.
Random House 1989

Baden, Michael M., Dead Reckoning.
Simon & Schuster 2001

White, P.C. – Crime Scene to Court: Essentials of Forensic Science
The Royal Society of Chemistry, July 1998

Pepper, Ian, Crime Scene Investigation: Methods and Procedures
Open University Press, Nov. 2004

Course Requirements:

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| 1) Midterm Exam | 45% |
| 2) Final Exam | 45% |
| 3) Quizzes | 10% |

COURSE OUTLINE

Wed.	19	Jan.	ORIENTATION
Mon.	24	Jan.	Chapter 1 – Introduction to Forensic Science, pg. 4-25
Wed.	26	Jan.	Chapter 2 – Crime Scene pg.27-58
Mon.	31	Jan.	Chapter 2 – Crime Scene (contd.)
Wed.	2	Feb.	Chapter 3 - Physical Evidence, pg. 9-72 & 93-100
Mon.	7	Feb.	Chapter 7 – Microscope, pg. 165-180
Wed.	9	Feb.	Chapter 13 – Hair, pg 322-330
Mon.	14	Feb.	Chapter 13 – Fibers & Paint, pg. 330-349
Wed.	16	Feb.	GUEST LECTURER
Mon.	21	Feb.	Chapter 5 – Organic Analysis, pg. 119-141
Wed.	23	Feb.	Chapter 5 - Organic Analysis (contd.)
Mon.	28	Feb.	Chapter 6 - Inorganic Analysis, pg 145-161
Wed.	2	Mar.	Chapter 6 - Inorganic Analysis (contd)
Mon.	7	Mar.	REVIEW
Wed.	9	Mar.	MID TERM EXAM
Mon.	14	Mar.	Spring BREAK
Wed.	16	Mar.	Spring BREAK
Mon.	21	Mar.	Chapter 16 – Fingerprints, pg. 389-413
Wed.	23	Mar.	Chapter 16 - Fingerprints (contd)
Mon.	28	Mar.	GUEST LECTURER
Wed.	30	Mar.	Chapter 10 – Forensic Serology, pg. 241-261
Mon.	4	Apr.	Chapter 10 - Serology (contd)
Wed.	6	Apr.	Chapter 12, - Blood Evidence and Its Significance, pg. 297-316
Mon.	11	Apr.	Chapter 9, Forensic Toxicology, pg. 213-237
Wed.	13	Apr.	Chapter 9, Forensic Toxicology (contd)
Mon.	18	Apr.	Chapter 8, Drugs, pg. 189-210
Wed.	20	Apr.	Chapter 8, Drugs (contd)
Mon.	25	Apr.	EXPERT WITNESS
Wed.	27	Apr.	MEDICAL EXAMINERS OFFICE/review
Mon.	2	May	READING DAY
Mon.	9	May	FINAL EXAM

NOTE: *This outline is subject to change. It is meant as a guide. THE STUDENT REMAINS RESPONSIBLE FOR THE COURSE CONTENT LISTED IN THE OUTLINE. It is suggested that you read the Star Ledger daily. You will be questioned and possibly tested on Forensic Cases and developments that appear on a daily basis.*