PHYSICAL FORENSIC SCIENCE
(FS 333)
COURSE INFORMATION AND OBJECTIVES

COURSE DESCRIPTION

This course is designed to give the student and overall view of the organization of a Crime Laboratory and provide understanding of how each discipline functions in the examination and analysis of evidence. This course will also provide the student with a basic understanding of the principles and procedures used within each discipline in examining and analyzing their particular types of evidence.

COURSE OBJECTIVES

Upon the completion of the course the student should be have a reasonable understanding of :

1. The organizational structure of a Crime Laboratory.

2. The role of each discipline in the Crime Laboratory Organization.

3. The minimum educational and training requirements for each discipline in the Crime Laboratory.

4. The basics principles and techniques used in the examination of Handwriting/Handprinting, Paper , Inks, Writing Instruments, Typewriters, Photocopiers, restoration of Obliterated, Erased and Indented Writings and the detection of Forged and Counterfeit Documents.

5. The basic principles and techniques used in the examinations of Firearms and Toolmark evidence, Bullet and Cartridge cases, Distance Determination, Recovery of Firearm Evidence and Serial Number Restoration.

6. The principles and techniques used in the examination and analysis of Trace Evidence, Hair and Fiber evidence, Paint and Glass evidence, Gunshot Residue/Explosives evidence and Fire Debris evidence.

7. The principles and techniques used in the examination and analysis of Dangerous Drugs, Chromatography methods, Spectrophotometry/ Mass Spectrometry methods and Classes of Controlled Substances.

TEXTBOOK

CRIMINALISTICS, An Introduction To Forensic Science (Sixth Edition), Richard Saferstein.

HANDOUTS, provided by the instructors.

ATTENDANCE

Attendance is critical and expected for the course. Students should notify the instructor if they anticipate not being able to attend a class.

READING ASSIGNMENTS

Students are expected to read the assigned and relevant Chapters and Handouts prior to coming to class.

COURSE EVALUATION

Students will be evaluated based on their total scores from **SIX QUIZZES** and a **FINAL EXAM**. The quizzes will be given by each instructor for the specific discipline covered and will be worth a total of **400 points** (see course schedule). The final exam will be cumulative and will be given the last day of class. The final exam will be worth **200 points**.

A = 540-600 points

B = 480-539 points

C = 450-479 points

D = 420-449 points

CLASS DATES AND TIMES

1/12/99-3/23/99

Tuesdays & Thursdays

5:45p - 7:45p

INSTRUCTORS

Jim Josey
Honolulu Police Department
Scientific Investigation Section Crime Laboratory
Phone: 529-3281

Curtis Kubo
Honolulu Police Department
Scientific Investigation Section Crime Laboratory
Phone: 529-3281

Tracy Tanaka
Honolulu Police Department
Scientific Investigations Section Crime Laboratory
Phone: 529-3281

Judith Christensen
Honolulu Police Department
Scientific Investigation Section Crime Laboratory
Phone: 529-3281

INSTRUCTORS BIOGRAPHY
PHYSICAL FORENSIC SCIENCE
(FS 333)

JIM JOSEY, Senior Forensic Documents Examiner
Honolulu Police Department
Scientific Investigation Section (Crime Laboratory)

Mr. Josey has been involved in the examination of questioned documents for approximately twenty two years. He is a retired police Major from Florida who came to HPD in 1988. His is responsible for overseeing the operations of the Questioned Documents Unit in the Crime Lab and is board certified as a qualified Forensic Document Examiner and Footwear and Tireprint Examiner.

Mr. Josey received his Bachelors of Arts Degree in Criminal Justice from the University Of West Florida and is a graduate of the FBI National Academy in Quantico, Virgina. He is a member of the American Academy of Forensic Sciences, International Association for Identification and the Southwestern Association of Forensic Document Examiners.

CURTIS KUBO, Criminalist II (Firearms/Toolmarks Examiner)
Honolulu Police Department
Scientific Investigation Section (Crime Laboratory)

Mr. Kubo has been with HPD for about sixteen years. He is a former a Evidence Specialist Supervisor assigned to the Crime Investigation Unit. He received his training in Firearms and Toolmarks Examination in the Crime Laboratory and served an internship in Dr. Henry Lee's laboratory at the Connecticut State Police Crime Laboratory. He has been involved in Firearms and Toolmarks Examinations for approximately five years and is responsible for the operation of the Firearms and Toolmarks Examinations Unit in the Crime Lab.

Mr. Kubo received his Bachelors of Arts Degree in Zoology and Sociology from the University Of Hawaii and is an active member of the Association Of Firearms and Toolmarks Examiners and the International Association For Identification.

TRACY TANAKA, Criminalist III (Trace Evidence Examiner)
Honolulu Police Department
Scientific Investigation Section (Crime Laboratory)

Mr. Tanaka has been with HPD for about fourteen years. He started his career as a criminalist in Drug Analysis. He is currently the coordinator for Trace Evidence Unit and is responsible for overseeing the operations of the broadest discipline in the Crime Laboratory. Some of his duties include the examination and analysis of Hairs, Fibers, Glass, Paint, Soil, Gunshot Residue and Explosives.

Mr. Tanaka received his Bachelors of Science Degree in Tropical Agriculture from the University of Hawaii and is a active member of the American Academy of Forensic Sciences.

JUDITH CHRISTENSEN, Criminalist III (Dangerous Drug Analyist)
Honolulu Police Department
Scientific Investigation Section (Crime Laboratory)

Ms. Christensen has been with HPD for about eighteen years. She is currently assigned to the Drug Analysis Unit in the Crime Laboratory and serves as Unit Coordinator. Her responsibilities include the analysis and identification of Dangerous Drugs and coordinating the day-to-day operations of the Drug Analysis Unit.

Ms. Christensen received a Bachelors of Science Degree in Biology and a Masters of Science Degree in Zoology from the University of Arizona and is a active member of the American Academy Of Forensic Sciences.

PHYSICAL FORENSIC SCIENCE
FS 333
CLASS SCHEDULE

DATE	TOPIC	INSTRUCTOR	READING
1/12/98	**Introduction to Forensic Science**	Jim **JOSEY**	
1/14/98	**Questioned Documents** Identification of Handwriting Methods of obtaining specimens	Jim **JOSEY**	**Chapter 16 & Handouts**
1/19/98	Identification of Handwriting	Jim **JOSEY**	
1/21/98	Identification of Paper, Writing Instruments, Inks, Typewriting Photocopiers and Computer Generated Documents	Jim **JOSEY**	
1/26/98	Restoration of Obliterated and Erased Writings, Unusual Questioned Document problems **Quiz 1** (100 points)	Jim **JOSEY**	
1/28/98	**Firearms and Toolmarks** Comparison Microscope Bullet & Cartridge case ID Drugfire & IBIS systems Distance Determination Serial Number Restoration Recovery of Firearm Evidence Toolmark Identification Misc.examinations	Curtis **KUBO**	**Page 188-189** **Chapter 15**
2/2/98	Review and **Quiz 2** (100 points)	Curtis **KUBO**	
2/4/98	**Introduction To Trace Evidence Analysis** Inorganic Analysis	Tracy **TANAKA**	**Chapter 6**
2/9/98	The Microscope Hair Examinations	Tracy **TANAKA**	**Chapter 7, 8**

2/11/98	Fiber Examinations	Tracy **TANAKA**	**Chapter 8**
2/16/98	**Quiz 3** (50 points) Paint Examinations	Tracy **TANAKA**	**Chapter 8**
2/18/98	Glass Examinations	Tracy **TANAKA**	**Chapter 4**
2/23/98	Gunshot Residue and Expolsives Examinations	Tracy **TANAKA**	**Chapter 11, 15**
2/25/98	**Quiz 4** (50 points) Fire Debris Examinations	Tracy **TANAKA**	**Chapter 11**
3/2/98	**Introduction to Drug Identification** Chomatography Methods	Judy **CHRISTENSEN**	**Chapter 5**
3/4/98	Spectrophotometry Methods Mass Spectrometry	Judy **CHRISTENSEN**	**Chapter 5**
3/9/98	**Quiz 5** (50 points) Class of Controlled Substances	Judy **CHRISTENSEN**	**Chapter 9**
3/11/98	Controlled Substances (con't)	Judy **CHRISTENSEN**	**Chapetr 9**
3/16/98	**Quiz 6** (50 Points) Techniques used in Drug Identification	Judy **CHRISTENSEN**	**Chapter 9**
3/18/98	**FINAL EXAM** (200 Points)	Jim **JOSEY**	