WE '03

PHYSICAL FORENSIC SCIENCE
(FS 333)
COURSE INFORMATION AND OBJECTIVES

COURSE DESCRIPTION

This course is designed to give the student an 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 have a reasonable understanding of:

1. The history of criminalistics and Crime Laboratories.

2. The organizational structure of a Crime laboratory and the role of each discipline within the organization.

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

4. Basic principles and techniques used in the examination of Questioned Documents, Footwear, and Tire Prints.

5. Basic principles and techniques used in the examination of Firearms and Tool Mark evidence, Bullet and Cartridge cases, Distance Determination, Recovery of Firearm evidence, and Serial Number restoration.

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

TEXTBOOK

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

HANDOUTS provided by the instructors.

ATTENDANCE

Attendance is critical and expected for the course. Each class is worth 5 points for a maximum of 100 points for the course. One excused absence will be allowed during the course. However, the class in which absence occurs will be worth only 3 points. In order for the student to receive credit for an excused absence they must notify the instructor in advance of the 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 **FOUR QUIZZES** and a **FINAL EXAM.** Each instructor will give the quizzes for the specific discipline covered and will be worth 50 points each for a total of **200 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**. The maximum number of points for attendance in class in **100 points**.

A = 500-450 points

B = 449-400 points

C = 399-350 points

D = 349-300 points

CLASS DATES AND TIMES

1/14/03 -3/25/02

Tuesdays & Thursdays

5:45p – 7:50p

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 Investigation Section Crime Laboratory
Phone: 529-3281

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

Claire Chun
Honolulu Police Department
Scientific Investigation Section Crime Laboratory
Phone: 529-3281

PHYSICAL FORENSIC SCIENCE
FS 333
CLASS SCHEDULE

DATE	TOPIC	INSTRUCTOR	READING
1/14/03	**Introduction to Forensic Science**	Jim **JOSEY**	Chapter 1
1/16/03	**Questioned Documents** Identification of Handwriting Methods of obtaining specimens	Jim **JOSEY**	Chapter 16 & Handouts
1/21/03	Identification of Handwriting	Jim **JOSEY**	
1/23/03	Identification of Paper, Writing Instruments, Inks, Typewriting Photocopiers and Computer Generated Documents	Jim **JOSEY**	
1/28/03	**Quiz 1** (50 points) Restoration of Obliterated and Erased Writings, Unusual Questioned Document problems	Jim **JOSEY**	
1/30/03	**Footwear and Tire Print Identification** Recovery Techniques Types of Comparisons Preparing Known Specimens Comparison Procedures Types Opinions	Jim **JOSEY**	Pages 443-449
2/4/03	**Firearms and Toolmarks** Comparison Microscope Bullet & Cartridge case ID Drugfire & IBIS systems Distance Determination Recovery of Firearm Evidence	Curtis **KUBO**	Pages 168-199 Chapter 15
2/6/03	**Quiz 2** (50 points) Serial Number Restoration Toolmark Identification Misc. examinations	Curtis **KUBO**	

2/11/03	**Introduction to Drug Identification** Chromatography Methods	Judy **CHRISTENSEN**	Chapter 5
2/13/03	Spectrometry Methods Mass Spectrometry	Judy **CHRISTENSEN**	Chapter 5
2/18/03	**Quiz 4** (50 points) Class of Controlled Substances	Judy **CHRISTENSEN**	Chapter 9
2/20/03	Controlled Substances (cont'd)	Judy **CHRISTENSEN**	Chapter 9
2/25/03	Techniques used in Drug Identification	Judy **CHRISTENSEN**	Chapter 9
2/27/03	**Introduction To Trace Evidence Analysis** Inorganic Analysis	Claire **CHUN**	Chapter 6
3/4/03	The Microscope Hair Examinations	Claire **CHUN**	Chapters 7 & 8
3/6/03	Fiber Examinations	Tracy **TANAKA**	Chapter 8
3/11/03	**Quiz 3** (50 points) Paint Examinations	Tracy **TANAKA**	Chapter 8
3/13/03	Glass Examinations	Claire **CHUN**	Chapter 4
3/18/03	Gunshot Residue and Explosives Examination	Tracy **TANAKA**	Chapters 11 & 15
3/20/03	Fire Debris Examinations	Claire **CHUN**	Chapter 11
3/25/02	**FINAL EXAM** (200points) Cumulative	Jim **JOSEY**	

January 2003

January 2003

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February 2003

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
		January 1, 03	2	3	4
					5
6	7	8	9	10	11
					12
13	14	15	16	17	18
	INTRO. TO FS		QUES. DOC.		
					19
20	21	22	23	24	25
	QUES. DOC.		QUES. DOC.		
					26
27	28	29	30	31	
	QUES. DOC.		SHOE/TIRE PR.		

February 2003

February 2003

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

March 2003

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
					February 1
					2
3	4 F/ARMS & TM	5	6 F/ARMS & TM	7	8
					9
10	11 DRUG ANAL.	12	13 DRUG ANAL.	14	15
					16
17	18 DRUG ANAL.	19	20 DRUG ANAL.	21	22
					23
24	25 DRUG ANAL.	26	27 TRACE EVIDENCE	28	

March 2003

March 2003

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April 2003

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
					March 1
					2
3	4 TRACE EVID.	5	6 TRACE EVID.	7	8
					9
10	11 TRACE EVID.	12	13 TRACE EVID.	14	15
					16
17	18 TRACE EVID.	19	20 TRACE EVID.	21	22
					23
24	25 FINAL EXAM	26	27	28	29
					30
31					

INSTRUCTORS BIOGRAPHY
PHYSICAL FORENSIC SCIENCE
(FS 333)

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

Mr. Josey is the Assistant Director of the Scientific Investigation Section and is in charge of Physical Comparison Analysis and the Crime Scene Services. As Senior Forensic Document Examiner he has been involved in the examination of questioned documents for approximately twenty-five years. He is a retired police Major from Florida who came to HPD in 1988. He is board certified as a qualified Forensic Document Examiner by the American Board of Forensic Document Examiners (ABFDE) and a Certified Footwear Examiner by the International Association For Identification (IAI).

Mr. Josey received his Master of Science Degree in Administration from Central Michigan University and a Bachelors of Arts Degree in Criminal Justice from the University of West Florida. He is a graduate of the FBI National Academy in Quantico, Virginia. He is a member of the American Academy of Forensic Sciences, International Association for Identification and the Southwestern Association of Forensic Document Examiners. He is certified as a qualified Forensic Document Examiner.

CURTIS KUBO, Criminalist III (Firearms/Tool Marks Examiner)
Honolulu Police Department
Scientific Investigation Section (Crime Laboratory)

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

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

Mr. Tanaka has been with HPD for about eighteen years. He started his career as an Evidence Specialist and was later promoted to a criminalist in Drug Analysis. He is currently the coordinator for the 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 an active member of the American Academy of Forensic Sciences and is certified by the American Board Criminalistics (ABC).

CLAIRE CHUN, Criminalist III (Trace Evidence Analyst)
Honolulu Police Department
Scientific Investigation Section (Crime Laboratory)

Ms. Chun has been with HPD for about twenty-five years. She began her career as n Evidence Specialist and was later promoted to criminalist and assigned to Drug Analysis Unit. Her current duties include the examination and analysis of Fire Debris, Hairs, Fibers, Glass, Paint, Explosives and Soil.

Ms. Chun received her Bachelors of Science Degree in Chemistry from the University of Hawaii. She is a member of the American Academy of Forensic Sciences, The California Association of Criminalists and the Northwest Association of Forensic Sciences. She is certified by the American Board of Criminalistics (ABC).

JUDITH CHRISTENSEN, Criminalist III (Controlled Substances and Drug Analyst)
Honolulu Police Department
Scientific Investigation Section (Crime Laboratory)

Ms. Christensen has been with HPD for about twenty-one 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 Controlled Substances 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 and is certified by the American Board of Criminalistics (ABC).