

# Forensic Science Applications Section 01

## FS 162

Spring 2023 3 Unit(s) 01/25/2023 to 05/15/2023 Modified 01/21/2023

### Contact Information

#### Eric Kwong

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Eric Kwong is an alum of SJSU's Forensic Science program, earning his BS in Forensic Science – Chemistry. He then went on to complete an MSc in Forensic Science from the University of Strathclyde in Glasgow, Scotland. While at SJSU he was the President of the Forensic Science Students group and worked as a student assistant in the Department of Justice Studies. At Strathclyde, Eric conducted preliminary research investigating the feasibility of using a handheld FTIR instrument for use in the field by personnel without a scientific background.

#### Office Hours

After Class or By Appointment

### Course Description and Requisites

Scientific analysis and interpretation of physical evidence using identification and comparison techniques. Practical lab exercises in human identification, questioned documents, bite marks, trace evidence, presumptive testing and glass analysis. Additional topics include court testimony, quality assurance and ethics.

Lecture 2 hours/Activity 2 hours.

Prerequisite(s): FS 11 or, JS or FS Major/Minor, Upper Division Standing. JS students may substitute JS 10 for FS 11 or FS 12.

Letter Graded

### Classroom Protocols

T/TH 11-1245 in HB 207

The basic format of this class will be lectures, with practical exercises to help reinforce topics discussed in lecture.

Students are not allowed to record without instructor permission

#### Lab Days

- Lab safe attire is required
- Food and Drink are prohibited from being consumed during practical exercise days

### Program Information

#### Program Learning Outcomes

At the end of a Bachelor of Science degree in Forensic Science, students should be able to:

1. Apply the scientific method to draw logical conclusions about crime scenes
  2. Demonstrate competence in the recognition, documentation, collection, and analysis of forensic evidence
  3. Identify sources and causes of error in forensic science
  4. Intero %InteénCommunicate fi t s clea y in both wri en re rts and oral testimón3
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Per [University Policy S16-9 \(http://www.sjsu.edu/senate/docs/S16-9.pdf\)](http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on [Syllabus Information web page \(https://www.sjsu.edu/curriculum/courses/syllabus-info.php\)](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) (<https://www.sjsu.edu/curriculum/courses/syllabus-info.php>). Make sure to visit this page to review and be aware of these university policies and resources.



## Course Schedule

Schedule subject to change with fair notice via canvas

Week	Date	Topics and Activities	Readings
1	1/26	Module I: Introduction to Forensic Science  Go over Lab Health and Safety/Fundamentals  Form Lab Groups	
2	1/31	Lecture: Brief history of forensic science, forensic laboratory structure, investigative personnel roles & responsibilities, The scientific method, characteristics of science/scientists	Chapter 2
	2/2	Lab: Observation	
3	2/7	Lecture: Characteristics of evidence: class, individual, identification; types of evidence, types of analysis, databases, chain of custody, probative value of forensic evidence, probability  Terminology Quiz at home	
	2/9	Module II: Trace Evidence  Lecture: Microscopy & Trace, Physical Fit	Chapter 17  Start Locard Lab
4	2/14	Lab: Start Locard/trace evidence	
	2/16	Lab: Finish Locard/trace evidence	Start Soil/Hair Lab
5	2/21	Lab: Physical Fit, Soil/Hair  Terminology Quiz at home	
	2/23	Lab: Finish Physical Fit, Soil/Hair	
6	2/28	Module III: Biometrics and Human Identification  Lecture: Human ID Early Methods  Midterm 1 - In Class	Chapters 7 and 14



