



Sam Houston State University

A Member of The Texas State University System

COLLEGE OF CRIMINAL JUSTICE

DEPARTMENT OF FORENSIC SCIENCE

FORS 7331 Research methods

Fall Semester 2017

Professor: Patrick Buzzini, PhD

Telephone: 936-294-3633

Class hours: Tues & Thurs 11:00-12:20

Office Hours: Tues 10:00am - 11:00am

Tues 12:30am - 2:00pm

Thurs 10:00am -11:00am

Office: 221-G

e-mail: patrick.buzzini@shsu.edu

Classroom: CFS 102

Recommended textbooks

Inman K, Rudin N. Principles and Practice of Criminalistics – The Profession of Forensic Science. CRC Press, Boca Raton, FL (2001).

Course description

This course focuses on scientific problem solving in forensic science. While a large portion of the course emphasizes data analysis (i.e., statistical methods) as well as experimental design typical of the experimental sciences, you will come to understand that forensic science is essentially a historical science. The core of this scientific discipline is valuing traces left behind, where each case may be regarded as a research problem, requiring a problem-solving approach. You will be exposed to case reviews and assessments, and interpretation problems to improve your skills and abilities in designing experiments and addressing questions pertinent to a given case.

Course objectives

After successful completion of this course you will:

1. Clearly understand the difference between experimental and historical science;
2. Be able to properly perform basic statistical analysis from forensic data;
3. Correctly implement experiments to test hypotheses in complex and non-routine forensic casework.

Course Schedule

Week	Date	Topic	Activity
1	Thu Aug 25	Syllabus review Software installation – R and RStudio	
2	Tue Aug 30	Introduction to research in forensic science and the scientific method	L Kirk's Ontogeny of criminalistics (RA)
2	Thu Sep 1	Introduction to research in forensic science and the scientific method	L
3	Tue Sep 6	Methodology of forensic examinations	L
3	Thu Sep 8	Methodology of forensic examinations	L
4	Tue Sep 13	Case assessment	L
4	Thu Sep 15	Case assessment	L
5	Tue Sep 20	Case study – Chicago Bank Robbery	E
5	Thu Sep 22	Case study – Chicago Bank Robbery	E
6	Tue Sep 27	Assignment – JFK Assassination case info	No class – ISHI meeting
6	Thu Sep 29	Assignment – JFK Assassination case info	No class – ISHI meeting
7	Tue Oct 4	Case study – JFK Assassination	E
7	Thu Oct 6	Case study – JFK Assassination	L
8	Tue Oct 11	Introduction to R software	LE
8	Thu Oct 13	Introduction to R software	LE
9	Tue Oct 18	Written test 1	LE
9	Thu Oct 20	Experimental design	LE
10	Tue Oct 25	Experimental design	LE
10	Thu Oct 27	Experimental design	LE
11	Tue Nov 1	Experimental design	LE
11	Thu Nov 3	Oral presentations Hist. Science Project (35%)	LE
12	Tue Nov 8	Advanced statistics	LE
12	Thu Nov 10	Advanced statistics	LE
13	Tue Nov 15	Advanced statistics	E
13	Thu Nov 17	Advanced statistics	E
14	Tue Nov 22	<i>Thanksgiving recess</i>	
14	Thu Nov 24	<i>Thanksgiving recess</i>	
15	Tue Nov 29	Advanced statistics	E
15	Thu Dec 1	Advanced statistics	E
16	Tue Dec 6	<i>Finals week</i>	
16	Thu Dec 8	<i>Finals week</i>	Oral presentations Exp. Science Project (35%)

L: lecture; E: exercise and discussion; RA: reading assignment

Schedule may be subject to modification

Attendance policy

Attendance will be recorded in keeping with University policy. Students are expected to attend class. Class attendance requirements will be followed in accordance with Academic Policy Statement 800401. In accordance with university policy, students will not be penalized for absences of up to three hours as long as assigned work has not been missed. If a student is absent it is their responsibility to obtain the class material and remain current with information distributed during class. Occasionally changes in schedule may be announced in class. *These changes apply to all students, even those who were absent from class.* One letter grade may, at the discretion of the instructor, be deducted from students' final grade if they miss more than

four classes. There will be no distinctions between “excused” and “unexcused” absences. Students are expected to be on time to class. After the beginning of the class, late students may be counted as absent.

Grading Policy

Final grades will be based upon the following scale: 90 plus average an “A”; 80 to 89 a “B”; 70 to 79 a “C”.

Appeals will be handled in accordance with University Policy Statement 900823, Academic Grievance Procedures for Students.

Assessment

Your final grade consists of the following grades:

Written test	30%
Experimental research project presentation	35%
Historical science research project presentation	35%

Make-up exams

There will be only one opportunity for make-up written exams. Such opportunity will be offered within a week of the date of the missed test. This opportunity will be given only in the event of a documented university-sponsored activity, or other unforeseen and unavoidable event. A written justification is required for such consideration. Missing this opportunity results in a grade of zero.

Student academic policies

Policies concerning Attendance, Academic Honesty, Disabled Student and Services for Disabled Students, and Absences on Religious Holy days may be found at: <http://www.shsu.edu/dept/academic-affairs/aps/aps-students.html>

Use of Cell & Smart Phones, PDA's & Similar Devices

Engaging in voice communication using a cell phone or similar communication device during class is prohibited. Leaving the classroom to receive a phone call is prohibited, except with prior approval of the instructor for urgent communications. Device sound alerts should be turned off during class. Engaging in text communication during class is discouraged, although non-disruptive occasional use is permitted. Persistent or extended texting is, however, not allowed. Per University policy communication using any electronic device during an in-class examination is prohibited.

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