

**San José State University**  
**Department of Justice Studies**  
**FS 169, Forensic Science Senior Seminar**  
**Course Number 29834, Core Competency Area E,**  
**Section 01 Spring 2017**

**Contact Information**

<b>Instructor:</b>	Dr. Steven Lee
<b>Office Location:</b>	MacQuarrie Hall 509
<b>Telephone:</b>	(408) 924-2948 office, (510) 882-9036 cell
<b>Email:</b>	<a href="mailto:steven.lee@sjsu.edu">steven.lee@sjsu.edu</a> ,
<b>Office Hours:</b>	Fridays 1115-1315 (In person or On line as requested- please set up appointments via email).
<b>Class Days/Time:</b>	Fridays 1330-1615
<b>Classroom:</b>	MQH 222
<b>Prerequisites:</b>	For Justice Studies Majors: Senior standing, JS 100W and JS 114 or instructor consent, graduation application filed and you must have already filled out and have a signed major form. Note- JS 114 is waived as a prerequisite for forensic science majors. For Forensic Science Majors: Senior standing, JS 100W, FS 161, FS, 162, Biology 1A, CHEM 1A and CHEM 1B or by instructor consent, graduation application filed and you must have already filled out and have a signed major form.

**Faculty Web Page and MYSJSU Messaging**

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on my faculty web page at <http://www.sjsu.edu/people/steven.lee/>. You are responsible for regularly checking with the messaging system through MySJSU (or other communication system as indicated by the instructor) to learn any updates.

**Course Description**

Identification, discussion and analysis of selected problems in justice studies and/or forensic science. A major term paper, presentation on a selected topic and participation on written as well as in-class assignments and activities are required.

## **Course Goals and Learning Objectives**

### **Course Learning Outcomes (CLO)**

Upon successful completion of this course, students will be able to:

### **Course Content Learning Outcomes**

Upon successful completion of this course, students will be able to:

CLO1 Critically analyze a contemporary problem in forensic science and propose policies and practices that could be implemented to help solve the problem.

CLO2 Provide oral and written presentations of the contemporary problem and its proposed solution in a manner that gives a clear introduction, rationale and purpose, addresses the issues/questions, uses an acceptable writing/speaking style, and uses APA editorial style.

CLO3 Demonstrate reasoning and argumentation that indicates an accurate and complete understanding of the issues, use of examples, data and references to support knowledge claims, and logical presentation of ideas, drawing valid conclusions.

CLO4 Think critically and solve problems using the scientific method. The course will also promote synthesis of knowledge gleaned from related learning units and current criminalistic practices. Some mathematical reasoning will be used to understand fundamental principles and their relationship to selected societal issues.

## **Required Texts/Readings**

### **Textbooks**

Lazer, D. (2004). *DNA and the criminal justice system: The technology of justice*. Cambridge: MIT Press.  
ISBN 0-262-62186-X

### **Other Readings**

Journal articles and other readings will be accessible at the SJSU library, on reserve or will be accessible on line. Citations and URLs for on line materials will be provided in assignments.

Readings and assignments will be scheduled from the following:

President's Council of Advisors on Science and Technology (2016) *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods*. [https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast\\_forensic\\_science\\_report\\_final.pdf](https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf)

National Academy of Sciences. (2009) *Strengthening Forensic Sciences in the US: A Path Forward*. <https://www.ncjrs.gov/pdffiles1/nij/grants/228091.pdf>

Jobling, M. A. and Gill, P. (2004). Encoded evidence: DNA in forensic analysis. *Nature Reviews Genetics*, 5, 739-751.

Kaye, D. H. and Smith, M. E. (2003). DNA Identification databases: Legality, legitimacy, and the case for population-wide coverage. *Wisconsin Law Review*, 2003(3): 414 -459.

Readings from [Website for DNA.gov](#) and [NIJ Training Courses](#)

[NCJRS Website](#)

[STR Internet NIST Website](#)

## **Library Liaison**

Silke Higgins, [silke.higgins@sjsu.edu](mailto:silke.higgins@sjsu.edu), (408) 808-2118  
<http://libguides.sjsu.edu/c.php?g=230074&p=1526987>

## **Course Requirements and Assignments**

Please be sure to review the following on sources and policies:

- University Syllabus Policy S16-9 at <http://www.sjsu.edu/senate/docs/S16-9.pdf>.
- Office of Graduate and Undergraduate Programs' Syllabus Information web page at <http://www.sjsu.edu/gup/syllabusinfo/>

Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of 45 hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practical. Other course structures will have equivalent workload expectations as described in the syllabus.

## **Assignments and Grading Policy**

1. Research paper (30%): prepare a literature review/policy analysis paper of an approved forensic science-related topic. (LO1, LO2, LO3, LO4)
2. Presentation (20%): a formal class presentation of the forensic science policy and practice paper, including topic outline and reference page. (LO1, LO2, LO3, LO4)
3. Participation (30%): come to class prepared to discuss and critique assigned readings; participate in all in-class and out-of-class assignments. (LO2, LO3, LO4)
4. Written assignments (20%): submission of three Discussion Questions (DQs) and Three Critical Issues (TCIs) per week. (LO3, LO4)

### **Course requirements and Grading:**

#### **Participation- 30%**

A significant portion of the course grade is based on class participation, therefore, it is essential that students keep up with the reading, complete all assignments and are active class participants. Readings will include journal articles, chapters from the required

textbook, on-line resources and publications and materials, original publications and proposals by the instructor.

Each week, **one to two students selected randomly (depending on class size) will be responsible for leading the discussion** of that week's reading or topic. Every week you will be graded on your participation. 5 points will be awarded to students who participate fully each week including leading the discussion if it is your week, being on time, providing several comments and questions during the seminar and on occasion, bringing to light additional information and references relevant to the topic. "Moderate" participation (a few comments or questions made, or students who participate considerably, but arrive more than 15 minutes late or leave more than 15 minutes early) will be awarded 3-4 points. Minimal participation will be awarded 1-2 points. Students who are completely silent or are absent will receive no participation points. These will be tabulated and averaged for your final participation grade. **Note that, it is also important that you be able to discuss chapter and reading contents beyond what you have written in the TCIs and DQs (see next section).**

### **Written Assignments= 20%**

#### **Submission of Three Discussion Questions (DQs) and Three Critical Issues (TCIs) = 20%**

You are responsible for keeping up with the assigned reading and being prepared to discuss them in class. Before class, **everyone is required to submit a set of three discussion questions (DQs)** based on that week's readings. In addition, you will be **required to identify and summarize a minimum of three critical issues (TCIs)** from each of the week's readings. Summaries of 1 paragraph per TCI (3 paragraphs total) will be required as typed, double spaced, 12-point font documents. Each TCI written assignment should be accompanied by a reference list. The reference list must be in APA format (see handout on APA citation format). The DQs and TCIs **must be emailed by Noon on the day before class.** Email to [steven.lee@sjsu.edu](mailto:steven.lee@sjsu.edu). **You must also bring hard copies of your DQs and TCIs to the class.** Submission of all of the DQs and summaries of TCIs = 20% of your total grade. **Late submissions will not be accepted.**

#### **Research Paper (30%):**

A single final paper for this course is required and is worth 30% of your grade. Each paper should be approximately 15 pages of text (no more than 20), typed and double-spaced, in 12-point font and black ink, with standard 1-inch margins and references in APA style. . Students must hand in original papers for this class. Copies of papers completed in previous classes, or papers largely adapted from previous classes, are unacceptable and, if submitted, will be considered a violation of academic integrity. This will result in severe consequences that may include failing the paper, failing the course and expulsion from SJSU. You will be required to upload your paper to [Turnitin.com](https://www.turnitin.com)

The questions guiding your paper will be developed jointly by the instructor and students during the first three weeks of the seminar on the topics under consideration. Each student must select a different topic. In the remaining weeks before the paper is due, students will meet to discuss their proposed paper topic. The students will also undertake

library research and generate a **minimum of 15 recent citations (with at least 5 of these citations from within the past three years: 2014-2017), directly relevant, scholarly articles on the topic and will include no less than at least 10 peer-reviewed journal articles (Total of 15 citations with 10 from peer reviewed journal articles. Others can be books, non-peer reviewed journal articles, newspaper articles, interview summaries, etc.)**. These recent articles must be directly related to the questions under consideration. The paper must show the capacity to undertake a literature review for the purpose of critical analysis of the questions. **Copies of the recent articles obtained from library research must be attached as an appendix to each paper.**

**Note on paper formats and grading:** page numbering begins on the first page of text (your cover page, if you use one, is not page 1, and your bibliography does not count as a page of text). Papers which are too short or too long, including papers using 1.5 or triple spacing instead of double spacing, will be penalized. You will also be provided a scoring rubric that I will use to grade your papers. Note- This scoring rubric is from Dr. Ann Lucas' JS 205 syllabus.

**Presentations (20%):** You will give a 20-30-minute presentation to the class on your topic, and distribute a one-page outline with a summary to the rest of the class and the instructor. Your written summary should be in narrative form, and may be single-spaced if you choose. Summaries should have citations (minimum of 2 with at least 1 from the last year-2012).

Use 10-point font or larger for your summaries, and be sure to include your name and topic. In addition, one week before, you must submit a reference by email to Lee for the entire class on your topic. The length of your presentations will depend on the number of students enrolled in the class, but plan at least 20 minutes and allow time for questions. Please practice your presentations: you need to cover your main points clearly and concisely, and you will be cut off if you talk for too long. Thus, to get a good grade for your presentation, you can't "wing it". You will be expected to deliver Power Point displays. Students will be expected to provide oral critiques of the summary and presentations.

### **Extra Credit**

Extra credit opportunities may be offered throughout the semester. These may include attendance at a Justice, Forensic Science, Chemistry of Biology Seminar (guest lecture), documented with a 2 paragraph synopsis/reaction paper, joining a professional organization (IAI, AAFS, CAC, AAA, etc.), or other assignments.

### **Policy regarding late work**

Late work will be marked down 10% for each calendar day that it is late. Late work will not be accepted once the assignment has been graded and given back to the class.

Make-ups for any assignment will not be given without prior approval from the instructor, or under extraordinary, documented, circumstances. The final exam cannot be made up.

### **Final Evaluation**

Your research paper will serve as the final evaluation and will be due the last Friday of the Spring 2017 semester = May 12, 2017.

### **Grading Policy**

Research Paper	30%
Presentation	20%
Written Assignments	20%
Participation	30%
Total	100%

Grading Scale for All Assignments:

A+ = 100-97%	A = 96-94%	A- = 93-90%
B+ = 89-87%	B = 86-84%	B- = 83-80%
C+ = 79-77%	C = 76-73%	
F = <74%		

Students must achieve a grade of "C" or better (not C-) to fulfill Forensic Science and Justice Studies major requirements.

### **Classroom Protocol**

Class participation is expected. You will be evaluated in part based upon your contributions to class discussions. It is essential that you come prepared to participate so keep up with the reading and plan to speak up.

Attendance is imperative for success in this class. Cell phone and laptop use are not permitted during class unless instructed otherwise. Users will be asked to leave.

### **University Policies**

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' [Syllabus Information web page](http://www.sjsu.edu/gup/syllabusinfo/) at <http://www.sjsu.edu/gup/syllabusinfo/>

### **Department's Reading and Writing Philosophy**

The Department of Justice Studies is committed to scholarly excellence. Therefore, the Department promotes academic, critical, and creative engagement with language (i.e., reading and writing) throughout its curriculum. A sustained and intensive exploration of language prepares students to think critically and to act meaningfully in interrelated areas of their lives—personal, professional, economic, social, political, ethical, and cultural. Graduates of the Department of Justice Studies leave San José State University prepared to enter a range of careers and for advanced study in a variety of fields; they are prepared to more effectively identify and ameliorate injustice in their personal, professional and

civic lives. Indeed, the impact of literacy is evident not only within the span of a specific course, semester, or academic program, but also over the span of a lifetime.

### **CASA Student Success Center**

The Student Success Center in the College of Applied Sciences and Arts (CASA) provides advising for undergraduate students majoring or wanting to major in programs offered in CASA Departments and Schools. All CASA students and students who would like to be in CASA are invited to stop by the Center for general education advising, help with changing majors, academic policy related questions, meeting with peer advisors, and/or attending various regularly scheduled presentations and workshops. If you are looking for academic advice or even tips about how to navigate your way around SJSU, check out the CASA Student Success Center. Location: MacQuarrie Hall (MQH) 533 - top floor of MacQuarrie Hall. Contact information: [408.924.2910](tel:408.924.2910). Website: <http://www.sjsu.edu/casa/ssc/>. The CASA Student Success Center also provides study space and laptops for checkout.

### **FSS Peer Mentors**

The Forensic Science Students Peer Mentor Center is located on the 5<sup>th</sup> floor of MacQuarrie Hall. The purpose of the FSS Peer Mentor Group is to provide a forum to assist forensic science students in navigating the major, understanding requirements and prerequisites, and making wise choices in their college careers. FSS Peer Mentors may also offer limited tutoring, and facilitate educational and professional opportunities. Peer Mentor services are free and available to active members of the FSS. These services may be offered in Spring 2017. Please contact [sjsu.fss@gmail.com](mailto:sjsu.fss@gmail.com) for more information.

### **Justice Studies Reading and Writing Philosophy**

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## FS 169 Forensic Science Senior Seminar, Spring 2017 Course Schedule

*The schedule is subject to change with fair notice and notice will be provided via email.*

Week	Date	Topics, Readings, Assignments, Deadlines
1	1/27	<p>Introductions, Overview, Evaluation of Student Prerequisites, Team Formation, Lee Website Review, Readings to be Posted on : <a href="#">Steve Lee Website</a> or will be sent by email.</p> <p>Sign up for Student-Led Discussions, 2-Student Leads Per Article, Required Readings                      Shriver, M, Frudakis, and B. Budowle. 2005. Getting the science and the ethics right in forensic genetics. <i>Nature Genetics</i> 37(5) 449-450.</p>
2	2/3	<p>Introduction Continued- Review of Course Requirements (focus on paper),</p> <p>Lazar, D. 2004 DNA and the Criminal Justice System Readings                      Preface: DNA: Diviner of Guilt of Threat to Liberty?                      Chapter 1. Introduction: DNA and the Criminal Justice System                      David Lazer</p> <p><b>DQs and TCIs due Noon by email on 2/2 (Hard copy 2/3)</b></p>
3	2/10	<p>Presentation Basics -- Content, Figures, Citations, Professionalism                      Library Research of Specific Topic, Library Tour if Available,                      Readings Posted on <a href="#">Steve Lee Website</a></p> <p>DQs and TCIs due Noon by email on 2/9 (Hard copy 2/10)</p> <p>Chapter 2. Furthering the Conversation about Science and Society                      Stephen Breyer</p> <p>Chapter 3 Science and Technology of Forensic DNA Profiling:                      Current Use and Future Directions                      Frederick R. Bieber</p> <p><b>DQs and TCIs due Noon by email on 2/9 (Hard copy 2/10)</b></p>
4	2/17	<p>On line- Creating a Working Bibliography for Research – Primary and Secondary Sources</p> <p>Preliminary Research Topics and reference due. Lee at AAFS</p> <p>Required Readings                      Lazar, D. 2004. DNA and the criminal justice system                      Chapter 7 Genetic Privacy                      George J. Annas                      Chapter 8 Ethical and Policy Guidance                      R. Alta Charo                      Chapter 9 Privacy and Forensic DNA Data Banks                      Barry Steinhardt</p> <p><b>DQs and TCIs and prelim research topics due Noon by email on 2/16 (Bring Hard copy 2/24)</b></p>

5	2/24	<p>Research and Preparation of Presentations - Required Readings  Distribution and Review of Research Presentation Evaluation  Criteria  Chapter 10 DNA Tests and Databases in Criminal Justice:  Individual Rights and the Common Good  Amitai Etzioni  Chapter 11 Strands of Privacy: DNA Databases, Informational  Privacy, and the OECD Guidelines  Viktor Mayer-Schönberger  Chapter 12 DNA Databases for Law Enforcement: The Coverage  Question and the Case for a Population-Wide Database  D. H. Kaye and Michael E. Smith  <b>DQs and TCIs due Noon by email on 2/23 (Hard copy 2/24)</b></p>
6	3/3	<p>Research Paper Introductions (2-3 per day)  1.  2.  3.  <b>DQs and TCIs due Noon by email on 3/2 (Hard copy 3/3)</b></p>
7	3/10	<p>Research Paper Introductions (2-3 per day)  4.  5.  6.</p>
8	3/17	<p>Research Paper Introductions Continued (2-3 per day)  7.  8.  9.</p>
9	3/24	<p>Research Paper Introductions Continued (2-3 per day)  10.  11.  12.</p>
10	3/31	Spring Break No Class
11	4/7	<p>Individual Topic Meetings (3-4 per day)  1  2  3  4</p>
12	4/14	<p>Individual Topic Meetings (3-4 per day)  5.  6.  7.  8.</p>

13	4/21	Individual Topic Meetings (3-4 per day) 9. 10. 11. 12.
14	4/28	Paper Presentations (3-4 per day) 1 2 3 4
15	5/5	Paper Presentations (3-4 per day) 5. 6. 7. 8.
16	5/12	Last Class Paper Presentations (3-4 per day) <b>All Final Papers Due</b> 9. 10. 11. 12.

**Instructor:**

Professor Lee holds a BS from SUNY Binghamton in Biology, MS from NYU and PhD from University of California, Berkeley in Molecular Biology. Lee holds several concurrent positions including consulting positions for biotech companies, Visiting Scholar at UC Berkeley, and an adjunct professor appointment in Chemistry at Florida International University and in Biological Sciences at San Francisco State University. He was formerly the Director of R&D at CA Dept of Justice DNA Laboratory from 1994-2000 where he served as an expert witness in DNA, directed the development, validation and implementation of new technologies and, conducted DNA training courses. He is a full member of the American Association for the Advancement of Science, the California Association of Criminalists, a Fellow of the Criminalistics Division of the American Academy of Forensic Sciences, and is an American Society of Crime Laboratory Directors Laboratory Accreditation Board certified inspector. He also served on the FBI Technical Working Group on DNA Analysis Methods group from 1994-2000. He has taught courses in molecular biology at SFSU (1996-1998), Forensic genetics at UC Davis (1997), and forensic DNA Typing of STRs at FIU (2003).