

JOHN JAY COLLEGE OF CRIMINAL JUSTICE

524 West 59th Street, New York, NY 10019

FOS 108 - CONCEPTS OF FORENSIC SCIENCE – FALL 2013 SECTIONS 05, 06, 07, & 08

Lecturer: Linda C. Rourke

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Office Hours: Mondays, Tuesdays, & Wednesdays 1300-1430hrs (1:00PM-2:30PM)
or by appointment.

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COURSE DESCRIPTION

This course provides the non-science major with an introduction to the forensic sciences. The lecture portion of the course establishes a foundation for understanding how the natural sciences are applied to matters of legal concern, concentrating on the concepts and techniques on which forensic science is built, including crime scene processing, physical evidence collection, microscopy, and the analysis of fingerprints, firearms and DNA evidence. The laboratory portion of the course provides an opportunity to learn “hands-on” by using common analytical techniques.

LEARNING OUTCOMES

1. To develop an understanding of how science is used in the criminal justice system.
2. To learn about the practical application of science to the analysis of specific types of physical evidence.
3. To develop critical thinking skills in solving criminal justice problems of a scientific nature.
4. To develop analytical skills in determining appropriate conclusions based on scientific data.

COURSE REQUIREMENTS

- * **Registration:** This course is restricted to students who have registered for FOS 108 Sections 05, 06, 07, and 08.
- * **Schedule (You may only attend the section for which you have registered):**
 - Lecture: Sections 05, 06, 07 & 08 - 1050 to 1205 hrs Mondays & Wednesdays
 - Laboratory: Section 05 - 1215 to 1330 hrs on Mondays & Wednesdays (Professor Bernal)
 - Section 06 - 1215 to 1330 hrs on Mondays & Wednesdays (Professor Del Valle)
 - Section 07 - 1050 to 1205 hrs on Tuesdays & Thursdays (Professor Kluge)
 - Section 08 - 1050 to 1205 hrs on Tuesdays & Thursdays (Professor Faber)Check the lecture and lab schedules for the actual dates.
- * **Prerequisite:** Natural Science 107 is a prerequisite for this course. Unless you have fulfilled certain high school science requirements you will not be permitted to take this course without having taken the NSC 107 prerequisite.
- * **Textbook:** I will permit you to use any recent edition of the following text:
Criminalistics: An Introduction to Forensic Science, by Richard Saferstein
Pearson Prentice Hall, Upper Saddle River NJ
It is currently in its 10th edition (2010), but you can save money by buying an older edition. The 8th & 9th Editions are available in the library reserve both in text and CD-ROM format.
10th Edition information: ISBN-10: 0135045207; ISBN-13: 978-0135045206
9th Edition library call number: HV8073 .S24 2007
8th Edition library call number: HV8073 .S2 2004

* **Required Laboratory Manual:**

Forensic Science 108 Laboratory Manual (2013)

This laboratory manual will be available for purchase in the John Jay College bookstore.

- * **Attendance** is required for both the lecture and laboratory sections; a total of four or more unexcused absences will adversely affect your grade; lateness of more than fifteen minutes will be counted as an absence. Schedule your personal appointments outside of official class time. Attendance will be recorded on roll sheets which will be distributed during each class meeting; **STUDENTS ARE RESPONSIBLE FOR SIGNING THE ROLL SHEET AND WILL BE CONSIDERED ABSENT IF THEY FORGET TO DO SO.** Absences will only be excused when proper documentation of an emergency circumstance is provided (i.e., a doctor's note for illness).
- * **Grading:** Your grade in the lecture portion of this course is worth 60% of your course grade and the laboratory section is worth 40% of your course grade. The lecture portion of your grade will be based upon your performance in lecture exams that will be given throughout the semester **AND** your attendance. The Official College Grading System will prevail as noted in the College Catalog.
- * **Lecture Exams:** The four lecture exams will **NOT** be cumulative. You must bring your JJC ID Card in order to take each exam. You will not be permitted to take an exam if you arrive more than 15 minutes after the exam has begun. Bring a #2 pencil, an eraser and a pen to each exam. **NO MAKE-UP EXAMS WILL BE GIVEN.** Students are required to take all four lecture exams. The lowest of the four grades will be dropped; the remaining three exam grades will be weighted equally. During examinations, students may not use any extraneous reference materials (e.g. books, notes, papers), communicate with other students, or use electronic devices such as phones, pagers, or PDA's. Any student caught cheating will receive a zero for the exam, and be referred to the College's Academic Integrity Officer for further action.
- * **Quizzes:** Quizzes may be given at any point during the semester and may be unannounced. Quizzes will be given during the first ten minutes of the lecture session. If you are late you will not be allowed to take the quiz. There are no make-up quizzes.
- * **Laboratory Grade:** Your laboratory grade will be based on the laboratory notebook grades for each exercise, your performance in the lab practical/general unknown, one lab exam, and one enhanced lab report. The laboratory requirements will be discussed by your laboratory instructors. Due to logistical concerns, we cannot guarantee that a student will be permitted to make-up missed laboratory exercises.
- * **Laboratory Safety:** Your safety in the laboratory depends heavily on following the lab rules. If you are engaging in unsafe practices you may be expelled from the class for the day and no make up for the lab will be offered. Repeated infractions will deleteriously affect your grade. **Laboratory goggles: Failure to possess and wear lab goggles is inexcusable. Goggles are mandatory for all lab sessions including recitations! The minimum penalty for not having or wearing your goggles is a zero for the lab exercise and dismissal from the period with a marked absence.** Students must provide their own scotch tape for use in the laboratory.
- * **Preparation** for each week: obtain the textbook and the lab manual from the bookstore, library, or online; please read the relevant chapters in the textbook **PRIOR** to each meeting, as well as any other assigned reading material. Your lab manual is required for the laboratory portion of the course. The lecture notes will be available on the course Blackboard website.
- * **Smart phone cell phone use:** Smart phones/cell phones should not be used in class. If you need to use them please leave the classroom.
- * **Appointments:** If you are unable to see me during scheduled office hours, please make an appointment to see me, especially if you have any special requirements - scheduling, disabilities, etc.

- * **College wide policies for undergraduate courses:** please see the *Undergraduate Bulletin*, Chapter 6 Academic Standards. This course will follow the standards set forth in that chapter. Please note, especially:

A. Incomplete Grade Policy

An Incomplete grade may be given only to those students who would pass the course if they were to satisfactorily complete course requirements. It is within the discretion of the faculty member as to whether or not to give the grade of Incomplete.

B. Extra Work During the Semester

Any extra credit coursework opportunities during the semester for a student to improve his or her grade must be made available to all students at the same time. Furthermore, there is no obligation on the part of any instructor to offer extra credit work in any course.

C. Americans with Disabilities Act (ADA) Policies

Qualified students with disabilities will be provided reasonable academic accommodations if determined eligible by the Office of Accessibility Services (OAS). Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility from the OAS, which is located at L66 in the new building (212-237-8031). It is the student's responsibility to initiate contact with the office and to follow the established procedures for having the accommodation notice sent to the instructor.

- * **Statement of the College Policy on Plagiarism**

Plagiarism is the presentation of someone else's ideas, words, or artistic, scientific, or technical work as one's own creation. Using the ideas or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations require citations to the original source.

Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism.

It is the student's responsibility to recognize the difference between statements that are common knowledge (which do not require documentation) and restatements of the ideas of others. Paraphrase, summary, and direct quotation are acceptable forms of restatement, as long as the source is cited.

Students who are unsure how and when to provide documentation are advised to consult with their instructors. The Library has free guides designed to help students with problems of documentation. (*John Jay College of Criminal Justice Undergraduate Bulletin*, Chapter 6 Academic Standards)

LECTURE SCHEDULE

Forensic Science 108 - Lecture Syllabus - Fall 2013

The following calendar of lecture topics and exam dates may change depending on scheduling. You must attend lecture to confirm the exam dates.

| # | Class Meeting | Lecture Topic | Reading Assignment |
|----|---------------|--|-----------------------------|
| 1 | 28-Aug-13 | W CLASSES BEGIN FOR FALL 2013 Course Introduction & Math Refresher | Syllabus |
| | 02-Sep-13 | M NO CLASSES SCHEDULED: LABOR DAY | |
| | 03-Sep-13 | T Last day to drop for 75% tuition refund | |
| | 04-Sep-13 | W NO CLASSES SCHEDULED | |
| | 05-Sep-13 | Th NO CLASSES SCHEDULED | |
| | 06-Sep-13 | F NO CLASSES SCHEDULED | |
| 2 | 09-Sep-13 | M Introduction to Forensic Science | Chapter 1 |
| | 10-Sep-13 | T LAST DAY TO ADD A CLASS Last day to drop for 50% tuition refund | |
| 3 | 11-Sep-13 | W The Crime Scene | Chapter 2 |
| | 13-Sep-13 | F NO CLASSES SCHEDULED | |
| | 14-Sep-13 | Sa NO CLASSES SCHEDULED | |
| 4 | 16-Sep-13 | M Physical Evidence | Chapter 3 |
| | 17-Sep-13 | T Last day to drop for 25% tuition refund | |
| 5 | 18-Sep-13 | W Glass and Soil | Chapter 4 |
| 6 | 23-Sep-13 | M Chemistry | Chapter 5 |
| 7 | 25-Sep-13 | W Organic Analysis | Chapter 5 |
| 8 | 30-Sep-13 | M Review for Exam 1 | Chapters 1, 2, 3, and 4 |
| 9 | 02-Oct-13 | W Exam #1 | Chapters 1, 2, 3, and 4 |
| 10 | 07-Oct-13 | M Inorganic Analysis | Chapter 6 |
| 11 | 09-Oct-13 | W Microscopy | Chapter 7 |
| | 14-Oct-13 | M COLUMBUS DAY: COLLEGE IS CLOSED | |
| 12 | 15-Oct-13 | T Drugs CLASSES FOLLOW A MONDAY SCHEDULE | Chapter 8 |
| | 16-Oct-13 | W Hairs and Fibers | Chapter 13 |
| 14 | 21-Oct-13 | M Review for Exam #2 | Chapters 5, 6, 7, and 8 |
| 15 | 23-Oct-13 | W Exam #2 | Chapters 5, 6, 7, and 8 |
| 16 | 28-Oct-13 | M Hairs and Fibers (continued) | Chapter 13 |
| 17 | 30-Oct-13 | W Forensic Serology | Chapter 10 |
| 18 | 04-Nov-13 | M Forensic Serology (continued) | Chapter 10 |
| 19 | 06-Nov-13 | W Fingerprints | Chapter 16 |
| | 08-Nov-13 | F Last day to withdraw without academic penalty | |
| 20 | 11-Nov-13 | M Fingerprints (continued) | Chapter 16 |
| 21 | 13-Nov-13 | W Firearms and Toolmarks Examination | Chapter 17 |
| 22 | 18-Nov-13 | M Review for Exam #3 | Chapters 10, 13, and 16 |
| 23 | 20-Nov-13 | W EXAM #3 | Chapters 10, 13, and 16 |
| 24 | 25-Nov-13 | M Firearms and Toolmarks Examination (continued) | Chapter 17 |
| | 27-Nov-13 | W CLASSES FOLLOW A FRIDAY SCHEDULE | |
| | 28-Nov-13 | Th THANKSGIVING: COLLEGE IS CLOSED | |
| | 29-Nov-13 | F COLLEGE IS CLOSED | |
| | 30-Nov-13 | Sa COLLEGE IS CLOSED | |
| 25 | 02-Dec-13 | M DNA Analysis | Chapter 11 |
| 26 | 04-Dec-13 | W DNA Analysis (continued) | Chapter 11 |
| 27 | 09-Dec-13 | M Fires and Explosions | Chapters 14 and 15 |
| 28 | 11-Dec-13 | W Fires and Explosions (continued)/Review for Exam #4 | Chapters 14 and 15 |
| 29 | 23-Dec-13 | M EXAM #4: FINAL EXAM (MANDATORY) 1015-1215hrs | Chapters 11, 14, 15, and 17 |

LAB SCHEDULE

Forensic Science 108 - Lab Syllabus - Fall 2013

Section 23 and 24 (Tues/Thur 8:00am to 9:15am)

| Class Meeting | Recitation and Laboratory | |
|---------------|----------------------------------|--|
| 29-Aug-13 | Th | Introduction/Guidelines |
| 2-Sep-13 | M | Labor Day - College is Closed |
| 3-Sep-13 | T | Math Refresher Exercise |
| | | Last Day to Drop a Course for 75% Refund |
| 4-Sep-13 | W | No Classes Scheduled |
| 5-Sep-13 | Th | No Classes Scheduled |
| 6-Sep-13 | F | No Classes Scheduled |
| 9-Sep-13 | M | Last Day to Add a Class |
| 10-Sep-13 | T | Crime Scene Recitation |
| 10-Sep-13 | T | Last Day to Drop a Course for 50% Refund |
| 12-Sep-13 | Th | Crime Scene Lab: Documentation and Evidence Collection |
| 13-Sep-13 | F | No Classes Scheduled |
| 14-Sep-13 | S | No Classes Scheduled |
| 17-Sep-13 | T | Crime Scene Lab: Smooth Sketch |
| | | Last Day to Drop a Course for 25% Refund |
| 19-Sep-13 | Th | Lab Report Recitation/Chemistry Recitation |
| 24-Sep-13 | T | Soil Recitation |
| 26-Sep-13 | Th | Soil Lab |
| 1-Oct-13 | T | Chromatography Recitation |
| 3-Oct-13 | Th | Chromatography Lab |
| 8-Oct-13 | T | Microscopy Recitation |
| 10-Oct-13 | Th | Microscopy Lab: Day 1 |
| 14-Oct-13 | M | Columbus Day - College is Closed |
| 15-Oct-13 | T | Classes Follow a Monday Schedule |
| 17-Oct-13 | Th | Microscopy Lab: Day 2 |
| 22-Oct-13 | T | Hair and Fibers Recitation |
| 24-Oct-13 | Th | Hair and Fibers Lab |
| 29-Oct-13 | T | Serology Recitation |
| 31-Oct-13 | Th | Serology Lab |
| 5-Nov-13 | T | Fingerprint Recitation Lab Report Due! |
| 7-Nov-13 | Th | Fingerprint Lab: Day 1 |
| 8-Nov-13 | F | Last Day to Withdraw Without Academic Penalty |
| 12-Nov-13 | T | Fingerprint Lab: Day 2 |
| 14-Nov-13 | Th | Fingerprint Lab: Day 3 |
| 19-Nov-13 | T | Blood Stain Patterns Recitation |
| 21-Nov-13 | Th | Blood Stain Patterns Lab |
| 26-Nov-13 | T | Review for Lab Final Exam and General Unknown Procedures |
| 27-Nov-13 | W | Classes Follow a Friday Schedule |
| 28-Nov-13 | Th | Thanksgiving - College is Closed |
| 29-Nov-13 | F | College Closed |
| 30-Nov-13 | S | College Closed |
| 3-Dec-13 | T | Lab Final Exam |
| 5-Dec-13 | Th | General Unknown: Day 1 |
| 10-Dec-13 | T | General Unknown: Day 2 |
| 12-Dec-13 | Th | General Unknown: Day 3 |