

# JOHN JAY COLLEGE OF CRIMINAL JUSTICE

524 West 59<sup>th</sup> Street, New York, NY 10019

## FOS 108 - CONCEPTS OF FORENSIC SCIENCE – FALL 2013 SECTIONS 09,11 SECTIONS 13,14,15

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Office: TBD  
Office Hours: By appointment only

### 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 09,11,13,14,15

\* **Schedule (You may only attend the section for which you have registered):**

Lecture: Sections 09,11 1905 to 2020 hrs Mondays & Wednesdays  
Laboratory: Section 09 - 1740 to 1855 hrs on Mondays & Wednesdays (Professor Bedford)  
Section 11 - 1905 to 2020 hrs on Tuesdays & Thursdays (Professor Renta)

Lecture: Sections 13,14,15 2030 to 2145 hrs Mondays & Wednesdays  
Laboratory: Section 13 - 1905 to 2020 hrs on Mondays & Wednesdays (Professor Bedford)  
Section 14 - 1905 to 2020 hrs on Mondays & Wednesdays (Professor Boyll)  
Section 15 - 2030 to 2145 hrs on Tuesdays & Thursdays (Professor Vorobyov)

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 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 10<sup>th</sup> edition (2010), but you can save money by buying an older edition. The 8<sup>th</sup> & 9<sup>th</sup> Editions are available in the library reserve both in text and CD-ROM format.

10<sup>th</sup> Edition information: ISBN-10: 0135045207; ISBN-13: 978-0135045206

9<sup>th</sup> Edition library call number: HV8073 .S24 2007

8<sup>th</sup> 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:** 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 **LATE or ONCE 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 cumulative. 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. The lab instructors and I take ANY form of cheating **VERY** seriously. This includes, but is not limited to exams, quizzes, labs, and lab reports. Again, all incidents will be reported to the 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.
- \* **Use of electronics and/or cell phones:** Electronics and Smart phones/cell phones will 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

I do not give any extra work during the semester. It is your responsibility to make up any missed work within a reasonable amount of time allotted to you by your instructor(s).

**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)

## Forensic Science 108 - Lecture Syllabus - Fall 2013

| #  | Meeting   |    | Lecture Topic                                       | Reading Assignment          |
|----|-----------|----|---|-----------------------------|
| 1  | 28-Aug-13 | W  | Course Introduction & Math Refresher                | Syllabus                    |
|    |           |    | Classes Begin                                       |                             |
|    | 2-Sep-13  | M  | Labor Day - College is Closed                       |                             |
|    | 3-Sep-13  | T  | Last Day to Drop a Course for 75% Refund            |                             |
|    | 4-Sep-13  | W  | No Classes Scheduled                                |                             |
| 2  | 9-Sep-13  | M  | Forensic Law  | Powerpoint                  |
|    |           |    | Last Day to Add a Class                             |                             |
|    | 10-Sep-13 | T  | Last Day to Drop a Course for 50% Refund            |                             |
| 3  | 11-Sep-13 | W  | The Crime Scene                                     | Chapter 2                   |
| 4  | 16-Sep-13 | M  | Physical Evidence                                   | Chapter 3                   |
|    | 17-Sep-13 | T  | Last Day to Drop a Course for 25% Refund            |                             |
| 5  | 18-Sep-13 | W  | Chemistry   | Chapter 4                   |
| 6  | 23-Sep-13 | M  | Microscopy  | Chapter 5                   |
| 7  | 25-Sep-13 | W  | Review for Exam #1                                  | Chapter 5                   |
| 8  | 30-Sep-13 | M  | <b>Exam #1</b>                                      | Chapters 1, 2, 3, and 4     |
| 9  | 2-Oct-13  | W  | Drugs   |                             |
| 10 | 7-Oct-13  | M  | Drugs (Continued)                                   | Chapter 6                   |
| 11 | 9-Oct-13  | W  | Toxicology  | Chapter 7                   |
|    | 14-Oct-13 | M  | Columbus Day - College is Closed                    |                             |
| 12 | 15-Oct-13 | T  | Hairs and Fibers                                    | Chapter 8                   |
|    |           |    | Classes Follow a Monday Schedule                    |                             |
| 13 | 16-Oct-13 | W  | Autopsy   | Chapter 13                  |
| 14 | 21-Oct-13 | M  | Entomology  | Chapters 5, 6, 7, and 8     |
| 15 | 23-Oct-13 | W  | Review for Exam #2                                  | Chapters 5, 6, 7, and 8     |
| 16 | 28-Oct-13 | M  | Exam #2   | Chapter 13                  |
| 17 | 30-Oct-13 | W  | Forensic Serology                                   | Chapter 10                  |
| 18 | 4-Nov-13  | M  | Bloodspatter  | Chapter 10                  |
| 19 | 6-Nov-13  | W  | Fingerprints  | Chapter 16                  |
|    | 8-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  | Firearms and Toolmarks (Continued)                  |                             |
| 23 | 20-Nov-13 | W  | Review For Exam #3                                  | Chapters 10, 13, and 16     |
| 24 | 25-Nov-13 | M  | Exam #3   |                             |
|    | 27-Nov-13 | W  | Classes Follow a Friday Schedule                    |                             |
|    | 28-Nov-13 | Th | Thanksgiving - College is Closed                    |                             |
| 25 | 2-Dec-13  | M  | DNA Analysis  | Chapter 11                  |
| 26 | 4-Dec-13  | W  | DNA Analysis (continued)                            | Chapter 11                  |
| 27 | 9-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          |
|    | 16-Dec-13 | M  | Final Exams   |                             |
| 29 | TBA       |    | <b>EXAM #4: FINAL EXAM (MANDATORY)</b>              | Chapters 11, 14, 15, and 17 |

| Class Meeting |    | Recitation + Laboratory                                  |
|---------------|----|--|
| 28-Aug-13     | W  | Introduction/Guidelines                                  |
|               |    | Classes Begin  |
| 2-Sep-13      | M  | Labor Day - College is Closed                            |
| 3-Sep-13      | T  | Last Day to Drop a Course for 75% Refund                 |
| 4-Sep-13      | W  | No Classes Scheduled                                     |
| 5-Sep-13      | Th | No Classes Scheduled                                     |
| 9-Sep-13      | M  | Math Refresher Exercise                                  |
|               |    | Last Day to Add a Class                                  |
| 10-Sep-13     | T  | Last Day to Drop a Course for 50% Refund                 |
| 11-Sep-13     | W  | Crime Scene Recitation                                   |
| 16-Sep-13     | M  | Crime Scene Lab: Documentation and Evidence Collection   |
| 17-Sep-13     | T  | Last Day to Drop a Course for 25% Refund                 |
| 18-Sep-13     | W  | Crime Scene Lab: Smooth Sketch                           |
| 23-Sep-13     | M  | Soil Recitation  |
| 25-Sep-13     | W  | Soil Lab   |
| 30-Sep-13     | M  | Chromatography Recitation                                |
| 2-Oct-13      | W  | Chromatography Lab                                       |
| 7-Oct-13      | M  | Microscopy Recitation                                    |
| 9-Oct-13      | W  | Microscopy Lab: Day 1                                    |
| 14-Oct-13     | M  | Columbus Day - College is Closed                         |
| 15-Oct-13     | T  | Miscoscopy Lab: Day 2                                    |
|               |    | Classes Follow a Monday Schedule                         |
| 16-Oct-13     | W  | Hair and Fibers Recitation                               |
| 21-Oct-13     | M  | Hair and Fibers Lab: Day 1                               |
| 23-Oct-13     | W  | Hair and Fibers Lab: Day 2                               |
| 28-Oct-13     | M  | Serology Recitation                                      |
| 30-Oct-13     | W  | Serology Lab   |
| 4-Nov-13      | M  | Fingerprint Recitation                                   |
|               |    | Lab Report Due!  |
| 6-Nov-13      | W  | Fingerprint Lab: Day 1 (Latent Fingerprints)             |
| 8-Nov-13      | F  | Last Day to Withdraw Without Academic Penalty            |
| 11-Nov-13     | M  | Fingerprint Lab: Day 2 (Fingerprint Unknown)             |
| 13-Nov-13     | W  | Fingerprint Lab: Day 3 (Latent Fingerprints)             |
| 18-Nov-13     | M  | Blood Stain Patterns Recitation                          |
| 20-Nov-13     | W  | Blood Stain Patterns Lab                                 |
| 25-Nov-13     | M  | 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   |
| 2-Dec-13      | M  | Lab Final Exam   |
| 4-Dec-13      | W  | General Unknown: Day 1                                   |
| 9-Dec-13      | M  | General Unknown: Day 2                                   |
| 11-Dec-13     | W  | General Unknown: Day 3                                   |