



## Forensic Science

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Central Bucks South

### Course Description:

Forensic Science is a one-semester course designed to introduce the scientific and investigative techniques used to solve a crime. The curriculum involves a strong understanding of the laboratory procedures taught and practiced in previous science courses. The requirement to participate and succeed in this course includes a minimum grade of “C” in Academic Biology.

The course will involve the application of chemical, physical, and biological principles for the investigation of physical evidence in criminal cases. It will entail analytical reasoning, laboratory testing, and provide expertise (qualified speakers who will present and help us to analyze evidence). Students will be taught the fundamentals of a criminal investigation and how it is applied in a court of law. The students will learn by doing – they will isolate and process crime scenes, analyze and interpret lab data, and problem solve. Each student’s experience will culminate with the solving of a crime scene scenario.

While the majority of class time will be dedicated to the discussion and understanding of investigative techniques, outside-of-class time will be required to fully comprehend the topics and techniques being discussed. Students should expect nightly homework assignments. Homework assignments could include, but are not limited to, the following: data analysis, practice worksheets, on-line research, case studies, personal reflection papers, and selected readings from the text. While the assignments are not lengthy by any means, they are vital to your understanding of the curriculum and your eventual success within the course.

### Course Materials:

#### **Provided=**

Textbook: Forensic Science: An Introduction to Scientific and Investigative Techniques

#### **Needed=**

Lecture/Discussion/Lab Notebook: 3 Ring Binder- **REQUIRED FOR LABS**

Class website= <http://cbsd.org/Domain/1908> Assessment/Document website: [quia.com](http://www.quia.com)

### Grading and Evaluation:

There are many opportunities to accumulate grades/points during the marking periods. Grades are given for tests, quizzes, labs, research projects, classwork, and homework. All grades are posted on the parent portal site.

Grades per marking period will be calculated based on the following weighted groups:

- 35% Primary assessments (Tests, Projects)
- 50% Secondary assessments (Quizzes, Labs)
- 15% Support (Homework, Classwork)

At the end of each marking period, percentage is converted to letter grades in accordance with the District’s guidelines. The final exam will consist of a written test and solving a mock crime scene. The final grade for the course is computed as follows:

- MP1/3 45%
- MP2/4 45%
- Final Exam 10%

Extra credit may be offered as additional questions on quizzes/exams and will ONLY be awarded when available to the entire class. There is also an opportunity for weekly current event assignments. Once a week, you may summarize a current event (at least 2 paragraphs) in Science with the article and your opinion.



### Class Expectations:

1. **Show courtesy and respect** for others in the classroom.
  2. **Demonstrate self-responsibility and maturity at all times.**
  3. **Follow all attendance policies.** This includes absences and cuts.
  4. **BYOD.** All school policies apply but respect Mr. Walsh's rules
  5. **Come to class prepared.** You will need to bring your notebook, textbook, pen/pencil, and completed assignments each day. You will lose 10% off of larger assignments for each day late.
  6. **Show pride in your own work.** Copying will result in zeroes for both parties. Plagiarism will not be tolerated and all school and district policies will apply.
  7. **Attendance is critical** to your success.
    - a. It is your responsibility to get any missed notes, class work, or assignments.
    - b. If absent, you will have the number of school days absent to make up any missed work.
  8. **EXTRA HELP:** I am **available for extra help** before or after school most days. Please *do not hesitate* to ask.
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### Course Outline

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|------|--|
| I    | Overview of Forensics<br>-History<br>-Chpt. 1: What a Forensic Scientist Does  |
| II   | Chpt. 10: Crime Scene Investigation<br>Chpt. 12: The Forensic Laboratory   |
| III  | Chpt. 17: Fingerprinting   |
| IV   | Chpt. 16: Trace Evidence (Hair, Fibers, Paint, Glass)  |
| V    | Impression Evidence<br>Chpt. 18: Footwear Impressions<br>Chpt. 19: Tire & Tire Track Impressions<br>Chpt. 20: Firearm & Tool Impressions |
| VI   | Chpt. 21: Questionable Documents   |
| VII  | Chpt. 11 & 13: Forensic Serology<br>-Recognition, identification, characteristics of blood & bloodstain patterns                         |
| VIII | Forensic Psychiatry  |
| IX   | Independent Research Project   |
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**REMEMBER**, this class is not about blood and guts and gory pictures. This course is a science class and we will investigate and discuss grown-up situations in a mature and scientific manner. While some things may make you a little queasy, the intention is not to 'gross' you out. It is to peak your interest, educate you, and perhaps turn you on to a new and exciting branch of science in the world.