



## AN INTRODUCTION TO FORENSIC SCIENCE

### MS. MASON'S COURSE SYLLABUS

#### BACKGROUND INFORMATION

Instructor: Kathryn Mason/Pinehurst Academy/Room 102. k.mason@pinehurst.edu.

Prerequisites: Biology and chemistry. The course is reserved for juniors and seniors. Underclassmen can enroll with the permission of the science department and Ms. Mason.

Note: Ms. Mason is helping a teacher at Pinehurst Academy incorporate forensic science into his 8<sup>th</sup> grade course. The course outline indicates content, activities, and laboratory investigations that are appropriate for younger students. High school students can earn extra credit by mentoring middle school students. Sign up with Ms. Mason to volunteer!

#### PURPOSE OF THE COURSE

The criminal trial is over. Is the defendant guilty or not guilty? The verdict finds many in disagreement with the jury's interpretation of the physical evidence found at a crime scene. This one-year course introduces high school students to the principles and techniques from areas of biology, biotechnology, chemistry, physics, and geology that apply to the identification, collection, and analysis of evidence found at a crime scene. The course is teacher-guided and student-directed with content presented in ways to foster engagement and promote "real world" relevance. A significant laboratory component is included, with investigations ranging from fiber and hair identification to DNA fingerprinting. Students work both independently and collaboratively while studying historical and contemporary cases to compare *real* forensic science investigations to those depicted in popular television series.

Grades are based on participation, collaborative effort, test performance, and thoroughness of lab reports, case studies, and other activities. For the final exam, students mimic the work of crime scene investigators by analyzing a mock crime scene, reconstructing events, and identifying the perpetrator using evidence to support motive, means, and opportunity. *The game is afoot!*

#### RESOURCES

Zedalis, Julianne, *CS High*.

Various textbooks, lab manuals, online videos, episodes of popular TV crime series, and other resources, including non-fictional case studies in forensic science.