

Forensic Science Syllabus – Coach Jeremy D. McCoy

I. Course Description

The class is designed around authentic performance assessments. Students work in teams to solve crimes using scientific knowledge and reasoning. It involves all areas of science, including biology, anatomy, chemistry, physics, and earth science with an emphasis in complex reasoning and critical thinking. In addition, students must incorporate the use of technology, communication skills, language arts, art, family and consumer science, mathematics, and social studies.

II. Rational

The class employs the idea that in the real world, all learning is interrelated and interdependent. This class blends all of the sciences with the core subject areas. Students will be asked to read, research, hypothesize, interview, compute and use deductive reasoning to propose crime solutions. With an ever increasing use of technology, the students will record data, draw conclusions, and formulate the best method for communicating results.

Integration is the method by which one learns. It connects different subject areas and reflects what happens in the real world. Through forensic science, students become involved in many disciplines of study. They find value and relevance in their studies as they interact within the global community.

The intention of this class, therefore, includes showing the interrelationships between all scientific areas of study. It uses current events in the community, country, and the world as its classroom and lab. As the students improve on lab skills and procedures, they will exemplify what occurs in solving crimes. As they improve their deductive reasoning and critical thinking skills, they will develop a lifelong learning style.

III. Course Goals

Students will:

- Critically think through and formulate problems.
- Identify and investigate probable solutions.
- Properly collect and scientifically evaluate data.
- Record results and draw logical conclusions based on the evidence.
- Apply data to the given authentic situations.
- Evaluate the most effective means of delivering the information.
- Communicate the results of the work.

IV. Course Outline

- Unit One – Intro
- Unit Two – Physical Evidence
- Unit Three – Glass and Soil
- Unit Four – Fingerprints
- Unit Five – Hair and Fiber
- Unit Six – Firearms/Ballistics
- Unit Seven – Drug and Paraphernalia
- Unit Eight – Body and Autopsies
- Unit Nine - DNA

V. Grading Policy

Points will be given for all students' work including lab reports, homework, worksheets, quizzes, test, class participation, and individual projects. Letter grades will be determined by percentage of total points:

92-100% = A 83-91% = B 73-82% = C 64-72% = D Below 64% = F

Points will be assessed in the following areas:

A. Writing Assignments:

Students are expected to use complete sentences, proper grammar, and correct spelling in every written performance. Assignments must have the student's name, date and period in the upper right hand corner. If it is more than one page they must be stapled. Each student will be required to keep a daily journal, which will be graded periodically.

B. Lab Work:

All students must pass a lab safety test before participating in the lab. Lab work is very important in the development and reinforcement of the concepts in the class. Labs will be graded on participation, following instructions, safe practices, and completion of the lab report. **Most labs must be typed.** The required format for lab reports is:

- (1) **Title**
- (2) **Purpose**
- (3) **Safety**
- (4) **Procedures**
- (5) **Data/Observations**
- (6) **Conclusions**

C. Special Projects, Exams and Quizzes:

Normally quizzes will be given over each chapter. Students may take handwritten notes over material in the chapter, and these notes may be used on the quiz. A student's notes may summarize or paraphrase the textbook, but students may not directly copy passages from the text into their notes. A comprehensive final will be given at the end of the course and will comprise approximately 10% of the student's final grade.

D. Class Participation:

Since class participation is an important part of this course and final grade, good attendance is vital for effective learning and academic progress. Up to 10% of your semester grade may be determined by class participation. Class participation includes such factors as attendance, punctuality, preparation, contribution to the learning environment, following directions, and a cooperative attitude. Participation points will be deducted for elective absences unless pre-approved by the instructor.

VI. Late Work and Makeup Work

All work is expected to be turned in on the due date. Unexcused late work will be assessed a point penalty of 10% per day. Late work will normally not be accepted after two days. Some work will not be accepted at all after the due date. This work will be designated by the instructor. Students are responsible for their own academic success. This means a student who misses a class period for any reason must arrange with the instructor to make up the work. Missed journal entries must be copied from another student. Students with an excused absence (official school function, medical, etc.) will be given a certain number of days to make up their late work, equal to the number of days absent. Students will have two opportunities to make up a missed lab. After that, the grade for that lab will become a zero. Makeup tests will cover the same material as the original test, but will normally be in an **essay format**. Makeup tests not taken within two weeks of returning to school will receive a zero.

VII. Attendance and Tardy Procedure

Attendance will be a factor in determining the participation grade. A student is tardy to class if the student is not in the classroom at the conclusion of the tardy bells. Detailed tardy policies are posted on the bulletin in the classroom.

VIII. Classroom Management

- A.** Students are expected to show respect for themselves, the instructor, their classmates, school property, and the property of others.
- B.** Since we will be situated in a laboratory classroom, the consumption of food and beverages will not be allowed. Bottled water and chewing gum will usually be permitted in the desk area, but not in the lab.
- C.** The teacher will counsel students who demonstrate unsatisfactory behavior. Repeated offenses may result in after school counseling, detention, parental conference, or referral to the office. They will also affect the student's class participation grade.
- D.** Students will normally be given a pass upon request to go to the bathroom or to complete urgent business. Any student who abuses this policy may lose these privileges.