

# FORENSIC SCIENCE SYLLABUS

James Clemens High School  
11306 County Line Road  
Madison, AL 35756  
(256)216-5313



Teacher: Mrs. Kristi Heath Room: B212  
Email: [kLheath@madisoncity.k12.al.us](mailto:kLheath@madisoncity.k12.al.us)  
Website: <https://www.madisoncity.k12.al.us/Domain/1238>

1. **Course Description:** This challenging class is designed to explore the science of crime scene analysis with real life application of Biology, Chemistry and Physics. A focus on solving high-level problems, crime scene management, fingerprint collection and analysis, forensic anthropology, forensic odontology, forensic pathology, and blood spatter analysis.
2. **Course Objectives:** Students will

1	Explain career opportunities in forensic and criminal investigations.
2	Identify safety precautions for forensic and criminal investigators.
3	Describe the history of forensic science.
4	Explain criminal investigation procedures, including purpose and types.
5	Describe responsibilities of various personnel involved in crime scene investigations. Examples: police, detectives, laboratory specialists, medical examiners
5.1	Explaining techniques for searching, sketching, and recording data from a crime scene
6	Explain ways to collect and preserve evidence from a crime scene.
6.1	Distinguishing between physical evidence and witness evidence
6.2	Comparing the three main pattern types that combine to form an individual's unique fingerprint
6.3	Explaining different methods of latent fingerprint development
6.4	Identifying origins of impressions, including footwear and tire tread
6.5	Describing ways to identify hair, fiber, and blood evidence
7	Describe presumptive and confirmatory forensic tests. Examples: blood type comparison, DNA testing
8	Describe the importance of genetic information to forensics.
8.1	Using the process of gel electrophoresis for deoxyribonucleic acid (DNA) fingerprinting
9	Describe the decomposition process.
9.1	Using rigor mortis to determine corpse position
9.2	Describing decomposition by-products used to determine time of death
9.3	Using entomological life cycles to determine time of death
10	Identify the importance of skeletal remains in forensics.
10.1	Comparing bones and skulls based on age, sex, and race
10.2	Using forensic dentistry to establish identity
11	Describe general categories of drugs and poisons, including their effects on humans.
11.1	Explaining ways poisons are detected during autopsy
12	Explain fingerprinting methods and identification techniques.
13	Distinguish between class and individual characteristics of firearms.
14	Use laws of physics to explain forensic evidence.
14.1	Analyzing blood spatter patterns to determine speed, height, and direction
14.2	Tracking trajectories of collected evidence
15	Describe techniques used to determine the validity of forensic documents. Examples: fiber and handwriting analysis, ink chromatography

# FORENSIC SCIENCE SYLLABUS

James Clemens High School  
11306 County Line Road  
Madison, AL 35756  
(256)216-5313



Teacher: Mrs. Kristi Heath Room: B212  
Email: [kLheath@madisoncity.k12.al.us](mailto:kLheath@madisoncity.k12.al.us)  
Website: <https://www.madisoncity.k12.al.us/Domain/1238>

### 3. Classroom Expectations:



1. **BE ON TIME.** Tardy means that you are not in the room and getting seated when the bell rings. JCHS policy governs the consequences for tardiness as detention, which will be served during lunch in the ISS room.
2. **BE RESPECTFUL:** Practice courtesy and mutual respect. Treat others as you would like to be treated. The classroom and laboratory is to be regarded as a safe and supportive learning environment. Observe good housekeeping practices. Work areas should be kept clean and tidy at all times.
3. **BE PREPARED:** Mentally focused on reaching your goals and following class expectations; and physically bringing proper materials EVERY DAY. Sign into Schoology daily and become aware of the daily lessons.
4. **BE RESOURCEFUL:** Thoroughly review assignments, videos, textbooks, and notes to answer questions before asking me.

#### Accommodations:

Requests for accommodations for this course or any school event are welcomed from students and parents.

#### Use of Electronic Devices:

- Students are expected to refrain from using cell phones, personal planning devices, music players, tablets, and/or laptops during class unless designated by the teacher.
- Student laptops should not be hard wired to the network or have print capabilities.
- Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers.
- Neither the teacher, nor the school is responsible for any lost, stolen or damaged electronic devices. Students bring them to school at their own risk.

# FORENSIC SCIENCE SYLLABUS

James Clemens High School  
11306 County Line Road  
Madison, AL 35756  
(256)216-5313



Teacher: Mrs. Kristi Heath Room: B212  
Email: [kLheath@madisoncity.k12.al.us](mailto:kLheath@madisoncity.k12.al.us)  
Website: <https://www.madisoncity.k12.al.us/Domain/1238>

## 4. Grading Policy:

Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for **excused** absences only. The Final Exam counts for 1/5 of final grade.

## 5. Make-up Test Policy & Late work:

If a student misses an assignment I will put a 0 into the grade book. It is the student's responsibility to collect make-up assignments. **Make-up work is only allowed for excused absences.** Make-up tests can be taken by appointment. A student has two chances to make-up a test. Students have the same number of days they were absent to make-up an assignment with no penalty. **Late work:** If a student turns in work late it is 50% off. **Mrs. Heath will not accept late work beyond 3 days.** If a student knows they will need extra time they should contact Mrs. Heath **before** the due date and we can work something out.

### Unexcused Absences

It is very important that you get all absences excused. If you do not, the computer will not allow me to enter a grade above a zero for any given assignment on the day you missed. It is your responsibility to take care of this.

## 6. Text and Other Required Reading:

*Forensic Science: An Introduction THIRD EDITION* by Richard Saferstein  
*Death's Acres: Inside the Body Farm* By Dr. Bill Bass & Jon Jefferson

## 7. Materials and Supplies Needed:

*Per Individual:*  
1 ½ - 2 inch three ring binder    Black/Blue ink pens & Pencils  
Loose leaf paper  
**Roll of paper towels**                    \$10 lab fee (paid at schedule pick-up)

**If you are interested in donating supplies to the classroom, we are always in need of:** copy paper, facial tissues, non-latex gloves, and paper towels.

## 8. Academic Dishonesty:

Academic dishonesty is cheating and is unacceptable at JCHS. Students should always be responsible for their own work and assignments. Students who are caught cheating will receive a 0 on the assignment. Acts of academic dishonesty include but are not limited to the following:

- Exchanging papers or answers with another student
- Using unauthorized notes, books, devices, or calculators during an activity or exam
- Copying work, including homework, from another student (even if you are in another class at the time)
- Talking or communicating during times when sensitive graded work is given

Students will be given explicit permission to work collaboratively during collaborative assignments.

# FORENSIC SCIENCE SYLLABUS

James Clemens High School  
11306 County Line Road  
Madison, AL 35756  
(256)216-5313



Teacher: Mrs. Kristi Heath Room: B212  
Email: [KLheath@madisoncity.k12.al.us](mailto:KLheath@madisoncity.k12.al.us)  
Website: <https://www.madisoncity.k12.al.us/Domain/1238>

<b>18 – WEEK PLAN*</b>	
<b>Week 1</b>	Unit 1: Basic Forensic Skills
<b>Week 2</b>	Unit 2: Introduction to Forensic Science
<b>Week 3</b>	Unit 2: Introduction to Forensic Science
<b>Week 4</b>	Unit 3: Anthropology
<b>Week 5</b>	Unit 4: Fingerprints
<b>Week 6</b>	Unit 4: Fingerprints
<b>Week 7</b>	Unit 5: Impression Evidence
<b>Week 8</b>	Unit 5: Impression Evidence
<b>Week 9</b>	Unit 6: Trace Evidence
<b>Week 10</b>	Unit 7: Document Analysis
<b>Week 11</b>	Unit 8: Blood
<b>Week 12</b>	Unit 8: Blood
<b>Week 13</b>	Unit 9: DNA Evidence
<b>Week 14</b>	Unit 9: DNA Evidence
<b>Week 15</b>	Unit 10: Entomology
<b>Week 16</b>	Unit 10: Entomology
<b>Week 17</b>	Unit 11: Toxicology
<b>Week 18</b>	Finals

\* The syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions, or substitutions. Adequate notice will be provided to students of any necessary changes.

## FORENSIC SCIENCE SYLLABUS

James Clemens High School  
11306 County Line Road  
Madison, AL 35756  
(256)216-5313



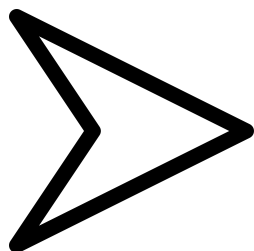
Teacher: Mrs. Kristi Heath Room: B212  
Email: [kLheath@madisoncity.k12.al.us](mailto:kLheath@madisoncity.k12.al.us)  
Website: <https://www.madisoncity.k12.al.us/Domain/1238>

Dear Parent/Guardian,

I look forward to having a great year! I feel fortunate to have your student in my class this semester and hope that you will contact me should you have any concerns about the progress of your student or any aspect of the instruction. Please read the policies that go with this form then complete the Google Form in the link below. Provide a current email address and phone number at which I can contact you should the need arise. Please contact me with any concerns.

Thank you,

Kristi Heath



### Next step:

Please complete the following Google Form to confirm you understand the syllabus and provide up to date contact information.

<https://forms.gle/asDZEwgEg6gQU9m28>