



Barry Goldwater High School, A+ School of Excellence



## Forensic Science Syllabus 2023-2024 School Year

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**Canvas Link:** <https://dvusd.instructure.com/courses/240609>

### Cultural Vision:

BGHS is committed to providing continuous opportunities to demonstrate achievement and personal growth in a collaborative student-centered community of diversity and kindness. To this end we embrace standards-based practices and focus on student learning and growth.

### SUPPLIES LIST

- Chromebook and charging cord provided by the School District
- Pencils and blue/black pens
- 100 page spiral notebook (By Friday 8/4)

### GUARANTEED AND VIABLE CURRICULUM

This lab course concentrates on the application of science to civil and criminal laws that are enforced by police agencies in a criminal justice system. Labs are designed to collect and analyze evidence. This is a year-long class worth one credit total. The prerequisite for this class is one year of Biology.

There are state standards, district curriculum expectations and a scope and sequence to ensure students are learning alongside their peers. At Goldwater we also focus heavily on critical thinking skills, communication skills, life skills, and habits of mind. Canvas, Power Schools, and/or the BGHS course website each provide specifics related to the Content Standards, Performance Objectives and Rubrics for grading.

### Classroom Expectations

Be prompt, prepared, respectful, and committed to the class, the instructor, and to one another. In the event that any of us are not prompt, prepared, respectful, and committed, we must take responsibility and make amends while accepting the consequences of our actions.

### What to do immediately upon entering this classroom:

1. Look at the White Board or View Board to determine learning goals.
2. Find your assigned seat.
3. Turn all electronic devices off and place in backpack. (Needs to be out of sight)
4. Take out your Chromebook, your Interactive Notebook, and put back-pack away as indicated.
5. Begin Prime Time and/or join your team to actively engage in learning.
6. Contribute to the learning and work hard to demonstrate your abilities.

## Course Outline of Units and Expected Time Frames

Fall Semester Forensic Science			
Unit Title & Resources Utilized	Essential Standards	Department and District Assessments	Expected Timeframe
Evidence and Crime Scene	<p>DV.F1.U1.1: Obtain, evaluate, and communicate information from criminal investigations to determine the job responsibilities for forensic science personnel.</p> <p>DV.F1. U1.2: Engage in an argument regarding the probative value of evidence</p> <p>DV.F1.U1.3: Plan and carry out a crime scene investigation to obtain, evaluate and communicate evidence from a crime scene</p>	Final Unit Crime Scene and Assessment	Weeks 1-6
Fingerprints, Hair, Fibers	<p>DV.F2.U1.5 Plan and Carry Out an experiment to determine the best fingerprint lifting method for a surface given.</p> <p>DV.F2.U1.6 Analyze and Interpret questioned and known fingerprint data to determine a match.</p> <p>DV.F2.U1.7 Analyze and Interpret characteristics of hair samples used in Forensic Analysis to eliminate suspects.</p> <p>DV.F2.U1.8 Analyze and interpret characteristics of fiber samples used in Forensic Analysis to eliminate suspects HS+C.P1U1.5 Plan and carry out investigations to test predictions of the outcomes of various reactions, based on patterns of physical and chemical properties.</p> <p>DV.F1.U1.4 Engage in an argument about the probative value of fiber evidence</p>	Final Unit Crime Scene and Assessment	Weeks 7-12

Drugs and Toxicology	<p>HS.P4U1.10 Construct an explanation about the relationships among the frequency, wavelength, and speed of waves traveling in various media, and their applications to modern technology.</p> <p>HS.P1U3.4 Obtain, evaluate, and communicate information about how the use of chemistry related technologies have had positive and negative ethical, social, economic, and/or political implications</p> <p>DV.F2.U1.9 Plan and Carry out a presumptive test experiment to determine an unknown drug identity or alcohol/drug impairment.</p> <p>DV.F2.U1.10 Analyze and interpret confirmatory test results for an unknown drug, poison, or BAC level to determine an individual's intoxication level</p>	Final Unit Crime Scene and Assessment	Weeks 13-18
<b>Spring Semester Forensic Science</b>			
<b>Unit Title &amp; Resources Utilized</b>	<b>Essential Standards</b>	<b>Department and District Assessments</b>	<b>Expected Timeframe</b>
DNA and Blood	<p>HS.L3U1.24 Construct an explanation of how the process of sexual reproduction contributes to genetic variation.</p> <p>HS+Phy.P3U1.3 Develop a mathematical model, using Newton's laws, to predict the motion of an object or system in two dimensions (projectile and circular motion).</p> <p>DV.F2.U1.14 Analyze and Interpret presumptive blood tests to identify an unknown stain at a crime scene. DV.F2.U1.15 Analyze and Interpret blood stains at a crime scene in order to reconstruct the sequence of events.</p> <p>HS.L3U3.26 Engage in argument from evidence regarding the ethical, social, economic, and/or political implications of a current genetic technology.</p> <p>DV.F2.U1.16 Obtain, Evaluate and Communicate the results of a DNA Profile to determine the source of a biological sample.</p> <p>HS.P3U1.6 Collect, analyze and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.</p> <p>HS.P1U3.4 Obtain, evaluate, and communicate information about how the use of chemistry related technologies have had positive and negative ethical, social, economic, and/or political implications</p>	Final Unit Crime Scene and Assessment	Weeks 1-6

Human Remains	<p>HS.P1U1.3 Ask questions, plan, and carry out investigations to explore the cause and effect relationship between reaction rate factors.</p> <p>DV.F2.U1.17 Obtain, Evaluate and Communicate information about time of death of a body based on post mortem changes, stages of decomposition, and/or insect activity.</p> <p>DV.F2.U1.18 Plan and Carry out an investigation on a dead body (autopsy-actual or simulated) to determine cause, mechanisms, and manners of death.</p> <p>DV.F2.U1.19 Analyze and interpret skeletal remains to determine the characteristics of the deceased</p>	Final Unit Crime Scene and Assessment	Weeks 7-12
Firearms, Impressions, and Glass	<p>HS.P3U1.6 Collect, analyze and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.</p> <p>DV.F2.U1.11 Analyze and interpret the physical properties of glass samples to determine the origin of glass</p> <p>DV.F2.U1.12 Analyze and interpret glass fracture patterns to determine the direction of force.</p> <p>DV.F2.U1.13 Engage in an argument using fracture patterns to determine the sequence of impacts</p> <p>HS.P3U2.7 Use mathematics and computational thinking to explain how Newton's laws are used in engineering and technologies to create products to serve human ends.</p> <p>DV.F2.U1.20 Analyze and interpret individual and class characteristics of bullets and cartridges to determine if they were fired from the same weapon.</p> <p>DV.F2.U1.21 Develop and Use a model to determine location of shooter based on GSR testing, location of cartridge casings, and bullet trajectory.</p> <p>DV.F2.U1.22 Analyze and Interpret the class and individual characteristics of tool marks, tire marks, and impressions to determine the sequence of events at a crime scene</p>	Final Unit Crime Scene and Assessment	Weeks 13-18

+ All titles subject to change at the discretion of the teaching team

## Grading and Feedback

At Barry Goldwater High School, we believe that a positive attitude and strong work ethic driven by the goal of continuous improvement are essential for student success both in high school and in life. Each piece of a student's work is crucial as it provides an opportunity for feedback to foster improvement and growth academically, socially, and emotionally. All coursework, both summative (assessments) and formative (practice), is of value and influences a teacher's understanding of student learning and growth. In order to ensure that teachers provide feedback based on student learning, DVUSD uses levels of proficiency based upon a student demonstrating what they know and can do relative to the IB Middle Years Program (MYP) Criteria, IB Diploma Criteria, and Arizona content standards. Feedback may be verbal or in writing and is intended to be timely and clear to provide the necessary support for a student to reach the next level of proficiency. Our expectation is that each student achieves mastery of each concept measured on a summative assessment.

Students will receive marks for their proficiency towards the standards using the following scale. These marks are for information and do not calculate the student's overall course grade.

**4 = Highly Proficient    3 = Proficient    2 = Partially Proficient    1 = Minimally Proficient**

Proficiency marks for each standard measured will use the following guide to assign a score to the assignment. Parents will be able to view the percentage score for each grade book entry with the letter grade mark on the front page of the PowerSchool parent portal or by the student PowerSchool site.

Highly Proficient A 100%-90%			Proficient B 89%-80%		Proficient C 79%-70%	
100-97	96-94	93-90	89-85	84-80	79-75	74-70
All 4's on standards	All 4's except for one 3	Mostly 4's with some 3's and/or 2's	Mostly 3's with some 4's All 3's on standards	Mostly 3's and 4's with a 2	Mostly 3's with some 2's	Mostly 2's with 3's and/or 4's
Partially Proficient D 69%-60%			Minimally Proficient F 59%-50%			
69-65		64-60	59-56		55-50	
Mostly 2's and 3's with a 1		All 2's on standards	Mostly 2's and some 1's		All 1's on standards	
No Evidence						
49% - 0%						

### Gradebook Categories:

**ASSESSMENT (80%)** This category includes ALL items used to measure a student's proficiency towards the learning standards once the student has had sufficient practice and at a specified point in time. Items in this category include, but are not limited to, summative tests, performance assessments, reports, unit or module assessments, quizzes, long-term projects, short-term projects, presentations, capstone projects, research papers, and lab reports.

**COURSEWORK (20%)** This category includes formative work that provides students with the opportunity to learn content and skills and to receive feedback on their learning. Coursework is assigned to provide meaningful, independent practice, reinforce learning targets, and extend learning. Items in this category include in-class assignments, quizzes, exit tickets, checks for understanding, and daily activities.

**PRACTICE (0%)** This category includes formative student work that a student completes while in the process of learning specific skills.

## Reassessment & Re-performance

**Retakes:** A student completes another assessment of the same standard. The assessment to be retaken may be in the same format or a different format. The higher of the two scores will be entered in the gradebook. To earn a retake opportunity, a student must complete all of the following:

- Complete all formative coursework related to the content/skill assessed
- Within 5 school days of receiving the assessment score, the student must communicate with the teacher to create a reassessment plan. Submit a reassessment plan or application, if required by the teacher.

**Re-performance:** The student will be reassessed on the same standard multiple times during a semester. All re-performance scores related to the targeted standard may be changed to reflect this new evidence of learning in the gradebook.

## Late Work

An assignment is considered late work when the assignment is not submitted by the due date that was established, but is submitted within the parameters listed below.

In order for Late Work to be accepted, the assignment must meet the following parameters:

- Assignment is not due within the class period
- Assignment is not a timed activity (such as a Quick-Write Essay)
- Assignment is not a Long-Term assignment (over multiple weeks)
- Assignment is submitted prior to the end of the instructional unit

No late assignments will be accepted once assignments are graded and returned to students or have been reviewed in class. See make up policy for when you are absent.

## Make Up Policy

Students are expected to complete and submit all assignments missed as a result of an absence. A student has one (1) day to make up assignments for each day of absence. Coursework and assessments assigned prior to the absence(s) may still be due on the date assigned. It is the student's responsibility to check in with teachers via email or to review Canvas for work missed and a possible adjustment of due dates. Teachers may choose to schedule an appointment with the student to arrange due dates as needed. Make-up work for an extended or any absence can be accessed via our Learning Management System (LMS) called Canvas. (per BGHS Student and Parent Handbook)

## Reporting Timeline

In order to provide better communication of student progress, an up-to-date progress report will be available on the dates listed below. Progress reports indicate where a student is with regard to achieving proficiency with the content standards and process skills at that point in time. A final grade will be given at the end of each semester. Students have many opportunities in each class to continue their learning, reassess, and grow.

Fall Semester Progress Report Reporting Dates	Spring Semester Progress Report Reporting Dates
August 18th September 8th September 29th October 20th November 17th	January 19th February 8th March 1st March 22nd April 12th

December 8 December 16th January 3rd *- End of Semester in PowerSchools	May 3rd May 16st May 17th - End of Semester in PowerSchools
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Your final mark will be determined by assessment of your proficiency in the standards for the course. Work will be assigned and should be completed in order to gain proficiency in skills and develop a thorough understanding of the concepts. Each piece of work is crucial as it provides opportunity for feedback, improvement and demonstration of growth.

### Positive Choices

Increased Learning	Positive feelings	Positive attention
Higher achievement levels	Increased confidence	Positive Peer relationships
More/ higher level skills	Increased success	Positive Relationships with staff
Scholarships, better jobs	Increased respect	Internships and Opportunities

### Consequences of Poor Choices

Offense	Minor Offenses	Major Offenses
1st	<ul style="list-style-type: none"> <li>Conference with student to reteach expectations</li> <li>Documented in PBIS Rewards as a minor referral</li> </ul>	<ol style="list-style-type: none"> <li>Staff member completes a major referral in PBIS Rewards</li> <li>Administrator completes Due Process</li> <li>Consequences are assigned</li> <li>Data entry completed</li> <li>Copy of processed referral form sent to teacher</li> </ol>
2nd	<ul style="list-style-type: none"> <li>Conference with student to reteach expectations</li> <li>Documented in PBIS Rewards as a minor referral</li> <li>Staff contacts guardian</li> </ul>	
3rd	<ul style="list-style-type: none"> <li>Conference with student to reteach expectations</li> <li>Documented in PBIS Rewards as a minor referral</li> <li>Staff assigns after school detention</li> </ul>	
4 <sup>th</sup> and Beyond	<ul style="list-style-type: none"> <li>Conference with student to reteach expectations</li> <li>Documented in PBIS Rewards as a major referral</li> <li>All future offenses are documented as major referrals</li> </ul>	



# BULLDOG PACK MATRIX

	CLASSROOM	COMMON AREA	RESTROOM/LOCKER ROOM
<b>PRIDE</b>	<ul style="list-style-type: none"> <li>Support your peers</li> <li>Produce work you are proud of</li> <li>Be actively engaged</li> </ul>	<ul style="list-style-type: none"> <li>Use positive language</li> <li>Clean up after yourself</li> </ul>	<ul style="list-style-type: none"> <li>Respect school property</li> <li>Clean up after yourself</li> </ul>
<b>ACCOUNTABILITY</b>	<ul style="list-style-type: none"> <li>Be on Time</li> <li>Personal devices away</li> <li>Ready to Learn</li> </ul>	<ul style="list-style-type: none"> <li>Move with purpose</li> <li>Have pass and ID</li> </ul>	<ul style="list-style-type: none"> <li>Use Restroom Before/After Class or at Lunch</li> <li>Use for intended purpose</li> </ul>
<b>COURAGE</b>	<ul style="list-style-type: none"> <li>Stand up for what's right</li> <li>Try something new</li> </ul>	<ul style="list-style-type: none"> <li>If you see something, say something</li> </ul>	<ul style="list-style-type: none"> <li>If you see something, say something</li> </ul>
<b>KINDNESS</b>	<ul style="list-style-type: none"> <li>Treat ALL with Respect</li> </ul>	<ul style="list-style-type: none"> <li>Include everyone</li> </ul>	<ul style="list-style-type: none"> <li>Respect others space and privacy</li> <li>Wash hands</li> </ul>

## BGHS Electronic Procedures

At BGHS we want students to learn how to leverage technology and its applications to make life easier and to enhance their performance now and in the future. We know that integrating tech into our classrooms is one way to expose students to the potential benefits of technology while at the same time helping them learn how to use these powerful tools responsibly. All students will receive a Chromebook they can use to complete their schoolwork. Since ALL students have access to a computing device, they will not need to use personal electronics during class time. As a courtesy and to ensure we focus on academic pursuits, **we require students to silence their phones and put away all personal electronics during instructional time.**



## Tech Policy



When entering classroom student will put away non academic technology, (phones, earbuds etc)

### 1st & 2nd Incident:

- Student asked to put away electronic device (phone, earbuds etc.) in a secure location as designated by the teacher.
- Minor offense in PBIS.**

### 3rd Incident:

- Student is sent with electronic device to the PRIDE office using purple pass.
- The device will remain in a secure location in PRIDE office until end of day.
- Teacher assigns after school detention
- Minor offense in PBIS**

### 4th & Beyond:

- Student is sent with electronic device to the PRIDE office using purple pass.
- The device will remain in a secure location in PRIDE office until end of day.
- Major Referral**

### Use of LLMs or Artificial Intelligence technology:

DVUSD has determined that the use of Large Language Models (LLMs), such as ChatGPT, is prohibited unless clearly specified by your teacher. Specific guidelines will be provided in the assignment details. If you are unsure if the tool or website you are using is an LLM or if it is permitted on a specific assignment, please contact your teacher before submitting your work.



## Attendance/Tardies

Our school motto is “Attend Today, Achieve Tomorrow.” This motto is an extension of our belief that regular attendance will equate to the attainment of excellence later in life. Remember, the benefit of lectures, discussion and participation is lost forever to those who are absent. Everyday Counts! Students who miss more than 10% of the class or school year are at risk of losing credit. (12 Class Periods)

Students are expected to arrive on time to each class daily. Remember, the school day starts at 7:30 am. Students who arrive to class, after the bell, but within the first TEN minutes of class, are tardy. Students who arrive later than 10 minutes will be marked absent. Excessive tardiness will result in a major referral.

Being punctual or being respectful of another’s time is an important part of a culture of kindness.

1. If you struggle to be on time... **BE EARLY.**
2. Once you arrive, don’t leave... **ENTER CLASS ONCE**
3. No hall passes during the first and last... **5 MINUTES** of class.
4. All students who are not in class can be approached by... **FACULTY and STAFF.**

**Remember, Attend Daily, On Time, Ready to Learn!**

## Out-of-Class Policies

Teaching and learning time is a priority. Students are asked to make every effort to be in class from bell to bell.

We ask that students limit the number of passes they request in a semester.

Students are expected to utilize the 5-minute passing periods and the 30-minute lunch period to check messages, and use the restroom, etc.

If students need to leave class, they must get teacher approval, fill out an e-Hall pass, and a Forensic Specific Pass.

## GOLD and Advisory Periods

At BGHS, learning is the constant expectation however, the time and support provided is what varies. Student mastery of content and each student's social and emotional well-being are equally important.

Advisory time on Mondays helps to ensure we develop a sense of belonging and connectivity at Goldwater.

GOLD time (Get Our Learning Done) is provided Tuesdays through Thursdays. During GOLD time, teachers work with students who need additional support or time to become proficient.

It is imperative that students check Flex Time Manager during Advisory to see if they have been requested by a teacher or to choose a session to work toward the next level of proficiency whether it be content knowledge or a related skill. The student will report to that location during GOLD time. Attendance is taken.