BACHELOR OF SCIENCE, MAJOR IN FORENSIC CHEMISTRY

Students seeking background and training in the area of forensic science can obtain a Bachelor of Science degree in Forensic Chemistry with options for no minor, a Forensic Science minor, or a Criminal Justice minor. This degree option educates students for careers in forensic chemistry in both private and government arenas and also prepares students to enter graduate schools in forensic science.

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-forensic-chemistry/)

Code	Title	Hours
Bachelor of Science, Major in Forensic Chemistry		
Core Curriculum (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)		
Component Area I (Communication)		6
Component Area II (Mathematics) [1]		3
Component Area III (Life and Physical Sciences) [2]		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts)		3
Component Area VI (American History)		6
Component Area VII (Government/Political Science)		6
Component Area VIII (Social and Behavioral Sciences) [3]		3
Component Area IX (Area IV elective or Oral Communication) [4]		4
Degree Specific Requirements		
BIOL 1406	General Biology I	4
BIOL 1407	General Biology II	4
BIOL 2440	Introductory Cell Biology	4
BIOL 3450	Introductory Genetics	4
ENGL 3330	Introduction to Technical Writing	3
MATH 1420	Calculus I [1]	4
MATH 1430	Calculus II	4
MATH 3379	Statistical Methods in Practice	3
or FORS 4317	Applied Statistics for Forensic Science	
PHYS 1301 & PHYS 1101	General Physics-Mechanics and Heat and General Physics Laboratory I	4
or PHYS 1411	Introduction To Physics I	
PHYS 1302 & PHYS 1102	General Physics-Sound, Light, Electricity, and Magnetism and General Physics Laboratory II	4
or PHYS 1422	Introduction To Physics II	
UNIV 1101	Bearkat U [4]	1
Major: Foundation		
CHEM 1411	General Chemistry I [2]	4
CHEM 1412	General Chemistry II [2]	4
CHEM 2323 & CHEM 2123	Organic Chemistry I: Lecture and Organic Chemistry I: Lab	4
CHEM 2325 & CHEM 2125	Organic Chemistry II: Lecture and Organic Chemistry II: Lab	4
CHEM 2401	Quantitative Analysis	4
CHEM 3367	Introduction to Inorganic Chemistry	3
CHEM 3438	Biochemistry I	4
CHEM 4100	Chemical Literature Seminar	1
CHEM 4367	Advanced Inorganic Chemistry	3
CHEM 4380	Forensic Chemistry	3
CHEM 4440	Instrumental Analytical Chemistry	4
CHEM 4448	Physical Chemistry I	4
Minor: Options [5,6,7]		

Option 1: No Minor in Forensic Science or Criminal Justice (126 hours) [5,6,7]		15
FORS 3366	Forensic Science [6]	
FORS 4380	Ethics and Professional Practice [6]	
FORS 3380	Introduction to Forensic Chemistry [6]	
Prescribed Elective: FORS or CRIJ courses (6 hours, at least 4 should be advanced) [5]		
Option 2: Forensic Science Minor (129 hours) [5,6,7]		**18**
Forensic Science Minor Coursework (18 hrs, at least 4 advanced) [5,6,7]		
CRIJ 2368	Criminal Investigation	
CRIJ 2394	Courts And Criminal Procedure	
FORS 3366	Forensic Science	
FORS 3380	Introduction to Forensic Chemistry	
FORS 4310	Physical Evidence Techniques	
FORS 4317	Applied Statistics for Forensic Science	
FORS 4320	Fundamentals of Forensic Biology	
FORS 4330	Fingerprint Examination	
FORS 4364	Crime Scene Investigation Techniques	
FORS 4380	Ethics and Professional Practice	
Option 3: Criminal Justice Minor (126 hours) [5,6,7]		**18**
CRIJ 2361	Introduction To The Criminal Justice System [3]	
CRIJ 2362	Criminology	
CRIJ 2364	Fundamentals Of Criminal Law	
CRIJ 3378	Introduction To Methods Of Research	
CRIJ 4385	Criminal Justice and Social Diversity	
FORS 3366	Forensic Science	
Total Hours		**126**

1 MATH 1420 satisfies the Core Curriculum requirement for Component Area II (Mathematics), one hour of Component Area IX (Component Area Option), and the Degree Specific requirement.

2 CHEM 1411 and CHEM 1412 satisfy the Core Curriculum requirement for Component Area III (Life and Physical Science) and the Major requirement.

3 CRIJ 2361 satisfies Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).

4 UNIV 1101 satisfies one credit hour of Component Area IX (Component Option Area) and the Degree Specific requirement.

5 Students should use minor hours to satisfy the 42 advanced hour requirement. Advanced hours are 3000- and 4000-level courses.

6 Students opting for the Forensic Science minor are highly recommended to select FORS 3366 Forensic Science and FORS 4380 Ethics and Professional Practice as part of their degree plan to help prepare for the Texas Forensic Analyst licensing exam. A course in statistics is also required but is part of the Degree Specific requirements. Selection of FORS 3380 Introduction to Forensic Chemistry in the minor is also highly recommended.

7 Students can have additional minors or, in the no minor option add minors other than Criminal Justice or Forensic Science. Additional minors add additional coursework to the degree plan. The following minor cannot be paired with this degree program: Minor in Chemistry. The Minor in Advanced Chemistry can be added to achieve American Chemical Society certification for the degree.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

A grade of C or higher is required
for CHEM 1411, CHEM 1412, CHEM 2323, CHEM 2123, CHEM 2325, CHEM 2125, CHEM 2401, CHEM 3367, CHEM 4448 and CHEM 4440, and in all required Physics and Mathematics courses.

This sequence has three options for required minor as listed above: no minor in Forensic Science or Criminal Justice, a minor in Forensic Science, or a minor in Criminal Justice. Students should use the minor or elective hours to satisfy the 42-advanced hour requirement. Advanced hours are 3000 and 4000-level courses.

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-forensic-chemistry/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

First Year

Fall	Hours	Spring	Hours
BIOL 1406	4	BIOL 1407	4
CHEM 1411[1]	4	CHEM 1412[1]	4
ENGL 1301[2]	3	ENGL 1302[2]	3
MATH 1420[3]	4	MATH 1430	4
UNIV 1101 (Or general elective)[4]	1		
	16		**15**

Second Year

Fall	Hours	Spring	Hours
CHEM 2123	1	CHEM 2125	1
CHEM 2323	3	CHEM 2325	3
CHEM 2401	4	ENGL 3330	3
CHEM 3367	3	FORS 3366 (course is required in all minor options)[5]	3
PHYS 1101	1	PHYS 1102	1
PHYS 1301	3	PHYS 1302	3
	15		**14**

Third Year

Fall	Hours	Spring	Hours
Component Area IV (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)	3	BIOL 3450	4
CHEM 3438	4	POLS 2306[6]	3
CHEM 4448	4	MATH 3379 or FORS 4317	3
POLS 2305[6]	3	Elective (Advanced) or Minor Option Course[5,7,8]	4
Minor Option Course[5,7,8]	3	Minor Option Course[5,7,8]	3
	17		**17**

Fourth Year

Fall	Hours	Spring	Hours
Component Area IX (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3	Component Area V (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3
CHEM 4440	4	CHEM 4100	1
HSTY 1301[9]	3	CHEM 4367	3
Elective (Advanced) or Minor Option Course[5,7,8]	3	CHEM 4380	3
Minor Option Course[5,7,8]	3	HSTY 1302[9]	3
		Minor Option Course[5,7,8]	3
	16		**16**

Total Hours: 126

1. Satisfies Core Curriculum requirement for Component Area III (Life and Physical Science) and the Major requirement.
2. Satisfies Core Curriculum requirement for Component Area I (Communications).
3. Satisfies Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific requirement.
4. UNIV 1101 satisfies one credit hour of Component Area IX (Component Area Option) and the Degree Specific Requirement.
5. FORS 3366 is required in all three minor options. The remaining 4-5 minor option courses vary depending on whether the student opts for no minor, the Forensic Science minor, or the Criminal Justice minor. Students should select courses to ensure they achieve the 42 required advanced hours. Advanced hours are 3000 or 4000 level courses.
6. Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).

7 Students selecting a minor in Forensic Science or Criminal Justice can have additional minors as well (though this adds additional coursework to the degree plan). The following minor cannot be paired with this degree program: Minor in Chemistry. The Minor in Advanced Chemistry can be added to achieve American Chemical Society certification for the degree.

8 Students who are interested in the graduate programs in Forensic Science at SHSU are encouraged to take BIOL 3470 and either BIOL 4480 or BIOL 4381 as advanced electives. Students seeking licensing as Forensic Analysts take FORS 4317 (or alternatively MATH 3379) to meet statistics requirements to take the licensing exam (the most up to date licensing requirements (https://www.txcourts.gov/fsc/licensing/)). Course selections in minor and electives must ensure at least 42 advanced hours for degree.

9 Satisfies the Core Curriculum requirement for Component Area VI (History).

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.0 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

A grade of C or higher is required for CHEM 1411, CHEM 1412, CHEM 2323, CHEM 2123, CHEM 2325, CHEM 2125, CHEM 2401, CHEM 3367, CHEM 4448 and CHEM 4440, and in all required Physics and Mathematics courses.

This sequence has three options for the required minor as listed above: no minor, a minor in Forensic Science, or a minor in Criminal Justice. Students should use the minor or elective hours to satisfy the 42-advanced hour requirement. Advanced hours are 3000 and 4000-level courses.

The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BS in Forensic Chemistry is designed to provide graduates with the following marketable skills:

- Work safely with standard chemicals in a chemistry laboratory.
- Keep thorough and accurate records of chemistry experiments.
- Write final research reports and orally present results of experiments.
- Analyze and interpret experimental data, including spectrophotometric data.
- Understand the use of the major methods of purification of chemical compounds, including chromatographic techniques.