BACHELOR OF SCIENCE, MAJOR IN CHEMISTRY: FORENSIC SCIENCE CONCENTRATION

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

Code	Title	Hours
Bachelor of Science, Major in Chemistry: Forensic Science Concentration		
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 Science) [2]		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts)		3
Component Area VI (U.S. History)		6
Component Area VII (Political Science/Government)		6
Component Area VIII (Social and Behavioral Sciences)		3
Component Area IX (Component Area Option) [1]		4
Degree Specific Requirements		
UNIV 1101	Bearkat U	1
MATH 1420	Calculus I [1]	4
MATH 1430	Calculus II	4
ENGL 3330	Introduction to Technical Writing	3
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 4100	Chemical Literature Seminar	1
CHEM 4260	Advanced Integrated Laboratory	2
CHEM 4448	Physical Chemistry I	4
Concentration: Forensic Science		
BIOL 1406	General Biology I	4
CHEM 3438	Biochemistry I	4
CHEM 4327	Polymer Chemistry	3
CHEM 4367	Advanced Inorganic Chemistry	3
CHEM 4380	Forensic Chemistry	3
CHEM 4395	Undergraduate Research In Chemistry	3
CHEM 4440	Instrumental Analytical Chemistry	4
CHEM 4449	Physical Chemistry II	4
FORS 4317 or MATH 3379	Applied Statistics for Forensic Science Statistical Methods in Practice	3
PHYS 1301 & PHYS 1101 or PHYS 1411	General Physics-Mechanics and Heat and General Physics Laboratory I Introduction To Physics I	4
PHYS 1302 & PHYS 1102	General Physics-Sound, Light, Electricity, and Magnetism and General Physics Laboratory II	4

or PHYS 1422	Introduction To Physics II	
Electives: General		
General Elective		9
Minor: Not Required [3, 4]		
Total Hours		**120**

1 MATH 1420 satisfies the Core Curriculum requirement for Component Area II (Mathematics), the one semester credit hour Core Curriculum requirement for 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 A minor is not required but can be chosen. A minor generally requires six semesters of coursework, a minimum of 18 credits (six advanced) in an approved field. Students should use elective and minor hours to satisfy the 42 advanced hour requirement. Advanced hours are 3000- and 4000-level courses. A minor in Math, as a common example, requires 10 additional hours beyond MATH 1420 and MATH 1430. Alternatively, a Forensic Science minor is recommended for additional coursework in ethics and evidence handling.

4 The following minor cannot be paired with this degree program: Minor in Chemistry. A Minor in Advanced Chemistry can be paired with this major, but the student must complete at least six hours of coursework in the minor beyond that required in the major.

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 2123, CHEM 2125, CHEM 2323, CHEM 2325, CHEM 2401, CHEM 4448, and in all required Physics and Mathematics courses.

A minor generally requires six semesters of coursework, a minimum of 18 credits (six advanced) in an approved field. Students should use elective and minor hours to satisfy the 42 advanced hour requirement. Advanced hours are 3000- and 4000-level courses.

First Year

Fall	Hours	Spring	Hours
BIOL 1406	4	CHEM 1412[1]	4
CHEM 1411[1]	4	CHEM 3367	3
ENGL 1301[2]	3	ENGL 1302[2]	3
MATH 1420[3]	4	MATH 1430	4
UNIV 1101	1		
	16		**14**

Second Year

Fall	Hours	Spring	Hours
Component Area IV (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)	3	CHEM 2125	1
CHEM 2123	1	CHEM 2325	3
CHEM 2323	3	ENGL 3330	3
CHEM 2401	4	General Electives[4]	3
PHYS 1301 & PHYS 1101 (or PHYS 1411)	4	PHYS 1302 & PHYS 1102 (or PHYS 1422)	4
	15		**14**

Third Year

Fall	Hours	Spring	Hours
CHEM 3438	4	Component Area V (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)	3

CHEM 4327	3	Component Area IX (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3
CHEM 4448	4	CHEM 4395	3
HSTY 1301[5]	3	CHEM 4449	4
POLS 2305[6]	3	HSTY 1302[5]	3
	17		**16**

Fourth Year

Fall	Hours	Spring	Hours
CHEM 4100	1	Component Area VIII (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)	3
CHEM 4440	4	CHEM 4260	2
FORS 4317 or MATH 3379	3	CHEM 4367	3
General Electives[4]	3	CHEM 4380	3
POLS 2306[6]	3	General Electives[4]	3
	14		**14**

Total Hours: 120

1 Satisfies Core Curriculum requirement for Component Area III (Life and Physical Science).
2 Satisfies Core Curriculum requirement for Component Area I (Communication).
3 Satisfies Core Curriculum requirement for Component Area II (Mathematics) as well as one credit hour of Core Curriculum requirement for Component Area IX (Component Area Option).
4 A minor generally requires six semesters of coursework, a minimum of 18 credits (six advanced) in an approved field. Students should use elective and minor hours to satisfy the 42 advanced hour requirement. Advanced hours are 3000- and 4000-level courses. A minor in Math, as a common example, requires 10 additional hours beyond MATH 1420 and MATH 1430 for 121 hours total. Alternatively, a Forensic Science minor is recommended for additional coursework in ethics and evidence handling. The following minor cannot be paired with this degree program: Minor in Chemistry. A Minor in Advanced Chemistry can be paired with this major, but students must complete at least six hours in the minor beyond those required in their major.
5 Satisfies Core Curriculum requirement for Component Area VI (U.S. History).
6 Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).

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 2123, CHEM 2125, CHEM 2323, CHEM 2325, CHEM 2401, CHEM 4448, and in all required Physics and Mathematics courses.

A minor generally requires six semesters of coursework, a minimum of 18 credits (six advanced) in an approved field. Students should use elective and minor 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 Chemistry: Forensic Science Concentration is designed to provide graduates with the following marketable skills:

- Work safely with standard chemicals in a chemistry or forensic laboratory.
- Keep thorough and accurate records of chemistry and forensic experiments.
- Write final research reports and orally present results of experiments.

- Analyze and interpret experimental data, including spectrophotometric data and statistical analysis.
- Understand the application of chemical measurements to forensic investigation.