

Chemistry, BS - Forensics Chemistry Concentration

This concentration meets the requirements of the American Chemical Society for certification and is designed for a student who plans to do graduate work in forensics chemistry or a related science or desires a forensics science position.

Chemistry: Forensics Chemistry Concentration, BS Requirements:

- Chemistry, Forensics Chemistry Concentration, BS degree requires 128 credit hours.
- 39 of 128 credit hours must be taken at 300 level or higher (39 credits includes courses taken at the 300+ level in major, minor (if chosen), Pre professional area and electives).
- 12 credit hours of 300 level and above must be taken in the major--or 6 credit hours in the major and 6 credit hours in the minor (if chosen).
- 12 of the last 18 credit hours must be taken at UAH, with an overall 25% of coursework taken at UAH.
- No more than 64 credit hours from a two-year college can be applied toward a UAH degree.
- For graduation application instructions, see here (<http://catalog.uah.edu/undergrad/policies-procedures/application-graduation/>).

Degree Requirements

Code	Title	Semester Hours
Freshman Composition		6
EH 101	COLLEGE WRITING I	
EH 102	COLLEGE WRITING II	
Humanities and Fine Arts		12
Fine Arts: Choose one		3
ARH 100	ARH SURV:ANCIENT-MEDIEVAL	
ARH 101	ARH SURV:RENAISSANCE-MODERN	
ARH 103	ARH SUR: WORLD ART	
TH 122	THEATRE APPRECIATION	
ARS 160	DRAWING: FOUNDATIONS	
MU 100	INTRO TO MUSIC LITERATURE	
Literature: Choose one		3
EH 207	READINGS LITERATURE/CULTURE I	
EH 208	READINGS LITERATURE/CULTURE 2	
Speech		3
CM 113	Intro to Rhetorical Communication	
Humanities or 2nd Fine Art or 2nd Literature: Choose one		3
PHL 101	INTRODUCTION TO PHILOSOPHY	
PHL 102	INTRO TO ETHICS	
PHL 150	TECH, SCIENCE & HUMAN VALUES	
PHL 103	INTRODUCTION TO LOGIC	
Any 100 or 200 level Foreign Language ⁴		
WLC 204	INTERNATIONAL CINEMA	
WGS 200	INTRO WOMEN'S & GENDER STUDIES	
2nd Literature ¹		
2nd Fine Art		
Mathematics and Sciences		12
Mathematics: ²		4
MA 171	CALCULUS A	
Natural Sciences: Physics		8
PH 111 & PH 114	GEN PHYSICS W/CALCULUS I and GENERAL PHYSICS LAB I	
and		

PH 112 & PH 115	GEN PHYSICS W/CALC II and GENERAL PHYSICS LAB II	
History and Social and Behavioral Sciences		12
History: Choose one ¹		3
HY 103	WORLD HISTORY TO 1500	
HY 104	WORLD HISTORY SINCE 1500	
HY 221	UNITED STATES TO 1877	
HY 222	UNITED STATES SINCE 1877	
Social and Behavioral Sciences: Choose two		6
ECN 142	PRINC OF MACROECONOMICS	
ECN 143	PRINC OF MICROECONOMICS	
PSC 101	INTRO TO AMERICAN GOVERNMENT	
PSC 102	INTRO TO COMPARATIVE POLITICS	
PSC 260	INTRODUCTION TO INTERNATIONAL RELATIONS	
GS 200	GLOBAL SYSTEMS AND CULTURES	
SOC 100	INTRO TO SOCIOLOGY	
SOC 102	ANALYSIS OF SOCIAL PROBLEMS	
SOC 105		
PY 101	GENERAL PSYCHOLOGY I	
PY 201	LIFE-SPAN DEVELOPMENT	
2nd History or 3rd Social and Behavioral Science: Choose one ³		3
2nd History ¹		
3rd Social and Behavioral Science ³		
Pre Professional		10
Computer Science: Choose one		3
CS 100	INTRO COMPUTERS & PROGRAM	
CS 102	INTRO TO C PROGRAMMING	
CS 103	INTRO PROGRAMMING USING JAVA	
Technical Writing		3
EH 301	TECHNICAL WRITING	
Additional Required Mathematics		4
MA 172	CALCULUS B	
Code	Title	Semester Hours
Chemistry		25
CH 121 & CH 125	GENERAL CHEMISTRY I and GENERAL CHEMISTRY LAB I	
CH 123 & CH 126	GENERAL CHEMISTRY II and GENERAL CHEMISTRY LAB II	
CH 223 & CH 224	QUANTITATIVE ANALYSIS and QUANTITATIVE ANALYSIS LAB	
CH 331 & CH 335	ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY LAB I	
CH 332	ORGANIC CHEMISTRY II	
CH 361	GENERAL BIOCHEMISTRY	
CH 401	INORGANIC CHEMISTRY	
Forensics Courses		20-22
CH 336	ORGANIC CHEMISTRY LAB II	
CH 347 & CH 345	BIOPHYSICAL CHEMISTRY I and EXPERIMENTAL PHYSICAL CHEM I	
CH 348 & CH 346	BIOPHYSICAL CHEMISTRY II and EXPERIMENTAL PHYSICAL CHEM II	
CH 362	GENERAL BIOCHEMISTRY LAB	

CH 363 & CH 364	GEN BIOCHEMISTRY II and GEN BIOCHEMISTRY LAB II
CH 402	INORGANIC CHEMISTRY LAB
CH 421	INSTRUMENTAL ANALYSIS
CH 491	INTRO TO CHEMICAL RESEARCH
or CH 492	INTRO TO CHEMICAL RESEARCH
or CH 493	INTRO TO CHEMICAL RESEARCH

Biology Minor **23-24**

BYS 119	PRINCIPLES OF BIOLOGY
BYS 120	ORGANISMAL BIOLOGY
BYS 219	GENETICS AND EVOLUTION
BYS 300	CELL & DEVELOPMENTAL BIOLOGY
BYS 321	GENERAL MICROBIOLOGY I
BYS 430	IMMUNOLOGY
or BYS 543	MOLECULAR BIOLOGY OF THE CELL

Elective Courses **5-7**

Additional Elective courses 100+ level to reach 128 credit hours. Electives can be taken from any department and do not have to be taken in your major or minor. No more than 4 HPE 100 level courses can count towards degree requirements.

Total Semester Hours **128**

- Students must take one literature and one history course. Students must also take either a second literature or history course to complete a sequence. (EH 207 + EH 208, EH 209 + EH 210, HY 103 + HY 104, or HY 221 + HY 222)
- Based on Math placement (<http://www.uah.edu/science/departments/math/undergraduate-students/placement/>), prerequisite (MA 112 and/or MA 113) Mathematics courses may be required.
- No more than 6 hours can be taken in a single discipline.
- For choices see the World Languages and Cultures (<http://catalog.uah.edu/undergrad/colleges-departments/arts-humanities-social-sciences/foreign-languages-literatures/#coursestext>) department.

Sample four year plan for Chemistry, Forensics Concentration BS degree:

Note: This is only an example and variations are possible.

Year 1

Fall	Semester Hours	
FYE 101	CHARGER SUCCESS	1
EH 101	COLLEGE WRITING I	3
MA 171	CALCULUS A	4
CH 121 & CH 125	GENERAL CHEMISTRY I and GENERAL CHEMISTRY LAB I	4
BYS 119	PRINCIPLES OF BIOLOGY	4
Term Semester Hours:		16
Spring	Semester Hours	
EH 102	COLLEGE WRITING II	3
MA 172	CALCULUS B	4
CH 123 & CH 126	GENERAL CHEMISTRY II and GENERAL CHEMISTRY LAB II	4
BYS 120	ORGANISMAL BIOLOGY	4
Elective		1
Electives can be taken from any department and do not have to be taken in your major or minor. No more than 4 HPE 100 level courses can count toward degree requirements.		
Term Semester Hours:		16

Year 2**Fall**

CH 331 & CH 335	ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY LAB I	4
CH 223 & CH 224	QUANTITATIVE ANALYSIS and QUANTITATIVE ANALYSIS LAB	4
PH 111 & PH 114	GEN PHYSICS W/CALCULUS I and GENERAL PHYSICS LAB I	4
Literature		3
See Requirements tab for approved list.		
Term Semester Hours:		15
Spring		
CH 332 & CH 336	ORGANIC CHEMISTRY II and ORGANIC CHEMISTRY LAB II	4
BYS 219	GENETICS AND EVOLUTION	4
PH 112 & PH 115	GEN PHYSICS W/CALC II and GENERAL PHYSICS LAB II	4
CM 113	Intro to Rhetorical Communication	3
Term Semester Hours:		15
Year 3		
Fall		
CH 347 & CH 345	BIOPHYSICAL CHEMISTRY I and EXPERIMENTAL PHYSICAL CHEM I	4
CH 361 & CH 362	GENERAL BIOCHEMISTRY and GENERAL BIOCHEMISTRY LAB	4
BYS 300	CELL DEVELOPMENTAL BIOLOGY	4
History		3
See Requirements tab for approved list.		
Elective		1
Electives can be taken from any department and do not have to be taken in your major or minor. No more than 4 HPE 100 level courses can count toward degree requirements.		
Term Semester Hours:		16
Spring		
CH 348 & CH 346	BIOPHYSICAL CHEMISTRY II and EXPERIMENTAL PHYSICAL CHEM II	4
CH 363 & CH 364	GEN BIOCHEMISTRY II and GEN BIOCHEMISTRY LAB II	4
BYS 321	GENERAL MICROBIOLOGY I	4
Social/Behavioral Science		3
See Requirements tab for approved list.		
Elective		1
Electives can be taken from any department and do not have to be taken in your major or minor. No more than 4 HPE 100 level courses can count toward degree requirements.		
Term Semester Hours:		16
Year 4		
Fall		
CH 401	INORGANIC CHEMISTRY	3
CH 421	INSTRUMENTAL ANALYSIS	4
CS 100 or CS 102 or CS 103	INTRO COMPUTERS PROGRAM or INTRO TO C PROGRAMMING or INTRO PROGRAMMING USING JAVA	3

BYS 430	IMMUNOLOGY (or Fine Art)	4
Social/Behavioral Science		3
See Requirements tab for approved list.		
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	Term Semester Hours:	17
Spring		
CH 402	INORGANIC CHEMISTRY LAB	1
EH 301	TECHNICAL WRITING	3
CH 493	INTRO TO CHEMICAL RESEARCH	3
or CH 491	or INTRO TO CHEMICAL RESEARCH	
or CH 492	or INTRO TO CHEMICAL RESEARCH	
BYS 543	MOLECULAR BIOLOGY OF THE CELL (or Fine Art)	3
Literature/Humanities/Fine Art		3
History or Social/Behavioral Science		3
See Requirements tab for approved list.		
Elective		1
Electives can be taken from any department and do not have to be taken in your major or minor. No more than 4 HPE 100 level courses can count toward degree requirements.		
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	Term Semester Hours:	17
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	Total Semester Hours:	128