

CHEMISTRY BIOCHEMISTRY TRACK, MAJOR

Degree Requirements

Code	Title	Hours
General Education Requirements		
https://bulletin.southalabama.edu/programs-az/arts-sciences/#generaleducationtext		50-54
Major Requirements		44
A. Complete the following:		
CH 131 & 131L	General Chemistry I and General Chemistry I Lab	4
CH 132 & 132L	General Chemistry II and General Chemistry II Lab	4
CH 150	Intro to Computer Chemistry	2
CH 201 & 201L	Organic Chemistry I and Organic Chemistry I Lab	4
CH 202 & 202L	Organic Chemistry II and Organic Chemistry II Lab	4
CH 265 & 265L	Introductory Analysis and Introductory Analysis Lab	4
Select one of the following:		4
CH 301 & 301L	Physical Chemistry I and Physical Chemistry I Lab-W	
CH 302 & 302L	Physical Chemistry II and Physical Chemistry II Lab - W	
CH 440	Biochemistry I	3
CH 441	Biochemistry II	3
CH 443	Lab Studies in Biochemistry	2
CH 465 & 465L	Instrumental Analysis and Instrumental Analysis Lab	5
CH 492	Seminar I	1
B. Select four hours from one or both of the following:		4
CH 394	Directed Studies -	
CH 494	Directed Studies	

Other STEM Requirements

See below for details on required coursework in Mathematics and Physics.

Minor Requirements

A minor is required for this degree program 18-24

A MINIMUM OF 120 HOURS IS REQUIRED FOR A DEGREE 120

All undergraduates must complete two designated writing credit (W) courses, at least one must be in major or minor.

Notes

Electives: Students in the Biochemistry track who desire ACS Certification of their degree must take CH 401 as an elective course.

Other STEM Requirements

Code	Title	Hours
Mathematics		
Two semesters of calculus are required, as follows:		

MA 125	Calculus I	4
MA 126	Calculus II	4

Physics

A Physics or Physics/Mathematics sequence is required. Select one 8-14 of the following options:

Option 1:

PH 201	Calculus-Based Physics I	
PH 202	Calculus-Based Physics II	

Option 2:

PH 114	Physics with Algebra-Trig I	
PH 115	Physics with Algebra -Trig II	
MA 227	Calculus III	

Option 3: see footnote table below (p. 1) ¹

PH 114	Physics with Algebra-Trig I	
PH 115	Physics with Algebra -Trig II	
PH 201	Calculus-Based Physics I	

Option 4: see footnote table below (p. 1) ¹

PH 114	Physics with Algebra-Trig I	
PH 115	Physics with Algebra -Trig II	
PH 202	Calculus-Based Physics II	

Footnote

¹ Options 3 and 4 require the approval of the Chair of the Department of Physics.

Graduation Plan

(122 Total Hours)

Course	Title	Hours
First Year		
Fall		
CH 131 & 131L	General Chemistry I and General Chemistry I Lab ¹	4
CAS 100	First Yr Exp -	2
EH 101	English Composition I	3
MA 125	Calculus I	4
Fine Arts	Area II, C ²	3
Hours		16
Spring		
CH 132 & 132L	General Chemistry II and General Chemistry II Lab ¹	4
CH 150	Intro to Computer Chemistry	2
EH 102	English Composition II	3
MA 126	Calculus II	4
History	Area IV, A ²	3
Hours		16
Second Year		
Fall		
CH 201 & 201L	Organic Chemistry I and Organic Chemistry I Lab	4
PH 201 & 201L	Calculus-Based Physics I and Calculus-Based Physics I Lab	4
CA 110	Public Speaking	3
Foreign Language	Area V, A ²	3
Hours		14
Spring		
CH 202 & 202L	Organic Chemistry II and Organic Chemistry II Lab	4

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PH 202 & 202L	Calculus-Based Physics II and Calculus-Based Physics II Lab	4
Foreign Language	Area V, A ²	3
Literature	Area II, B ²	3
Minor course		3
Hours		17
Third Year		
Fall		
CH 301 & 301L	Physical Chemistry I and Physical Chemistry I Lab-W ³	4
CH 440	Biochemistry I	3
History, Social, or Behavioral Science	Area IV, B ²	3
Humanities	Area II, D	3
Minor course		3
Hours		16
Spring		
CH 265 & 265L	Introductory Analysis and Introductory Analysis Lab	4
CH 441	Biochemistry II	3
CH 394 or CH 494	Directed Studies - or Directed Studies	2
History, Social, or Behavioral Science	Area IV, B ²	3
Minor course		3
Hours		15
Fourth Year		
Fall		
CH 465 & 465L	Instrumental Analysis and Instrumental Analysis Lab	5
CH 394 or CH 494	Directed Studies - or Directed Studies	2
Humanities	Area II, D ²	3
Minor course		3
Hours		13
Spring		
CH 443	Lab Studies in Biochemistry	2
CH 492	Seminar I	1
Elective or Minor Course		3
History, Social, or Behavioral Science	Area IV, B ²	3
Minor courses		6
Hours		15
Total Hours		122

¹ While the General Chemistry I and II Lecture and Lab are not strict co-requisites, completion of both is required to enroll in any course for which they are a pre-requisite. It is very strongly suggested that CH 131 and CH 131L be taken the same semester, and CH 132 and CH 132L be taken the following semester.

² See General Education Requirements

³ Biochemistry students must take one Physical Chemistry Lecture/Lab pair. CH 301/CH 301L is recommended for Biochemistry students and generally offered in the Fall; CH 302/CH 302L is allowed and generally offered in the Spring.