

# BACHELOR OF SCIENCE, MAJOR IN COMPOSITE SCIENCE

## Bachelor of Science, Major in Composite Science

Component Area I (Communication)	6
Component Area II (Mathematics)	3
Component Area III (Life and Physical Science)	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) <sup>1</sup>	3
Component Area IX (Component Area Option)	4
<b>Degree Specific Requirements</b>	
BIOL 1411 General Botany <sup>2</sup>	4
BIOL 1436 Foundations Of Science <sup>2</sup>	4
MATH 1410 Elementary Functions <sup>3</sup>	4
<b>Major Core</b>	
BIOL 1413 General Zoology	4
BIOL 2440 Introductory Cell Biology	4
CHEM 1411 General Chemistry I	4
CHEM 1412 General Chemistry II	4
GEOG 1401 Weather and Climate	4
GEOL 1403 Physical Geology	4
GEOL 1404 Historical Geology	4
PHYS 1301 & PHYS 1101 General Phy-Mechanics & Heat and General Physics Laboratory I	4
PHYS 1302 & PHYS 1102 Gen Phy-Snd,Lght, Elec, & Mag and General Physics Laboratory II	4
PHYS 1403 Stars & Galaxies <sup>4</sup>	4
or CHEM 2323/2123 Organic Chemistry I: Lecture	
GEOL 3330 Oceanography <sup>5</sup>	3
STAT 3379 Statistical Methds In Practice	3
<b>Teacher Certification</b>	
BIOL 3390 Science Teaching Methods	3
CISE 3384 The Teaching Profession	3
CISE 4364 Mth Tch Secondary Schools	3
CISE 4377 Assmt Stdnt Lrng In Secondary	3
CISE 4378 Content Literacy	3
CISE 4380 Respon Of Pro Educator	3
CISE 4394 Creatng Env For Lrng-Secondary	3
CISE 4396 Std Tch Secondary Classroom	3
CISE 4397 Std Tch Secondary Classroom	3
<b>Concentration Courses</b>	9-14
Total Hours	124-129

<sup>1</sup> PHYS 1301 and PHYS 1101 recommended for Core Curriculum requirement Component Area VIII (Social and Behavioral Sciences) and the major..

<sup>2</sup> BIOL 1411 and BIOL 1436 satisfy Core Curriculum requirement for Component Area III (Life and Physical Science). and the major.

<sup>3</sup> MATH 1410 satisfies Core Curriculum requirement for Component Area II (Mathematics) and Component Area IX (Component Area Option) as well as the major.

<sup>4</sup> PHYS 1403 taken for Biology and Earth Science concentration, and CHEM 2323 and CHEM 2123 taken for Chemistry and Physics concentration.

<sup>5</sup> GEOL 3330 taken for Biology, Earth Science, and Physics Concentration, and CHEM 3438 taken for Chemistry concentration. .

## Concentrations

### Geology Concentration

Choose three of the following:		9-12
GEOL 3326	Environmental Geology	
GEOL 3332	Forensic Geology	
GEOL 4312	Economic Geology	
GEOL 4331	Geology Of North America	
GEOL 4337	Plate Tectonics	
GEOL 4402	Structural Geology	
GEOL 4426	Hydrogeology	
GEOG 4432	Geomorphology	
Total Hours		9-12

### Physics Concentration

Choose three of the following:		9-10
PHYS 3395	Electronics & Circuit Analysis	
PHYS 3397 & PHYS 3117	Astronomy and Astronomy Laboratory	
PHYS 4333	Light And Optics	
PHYS 4367	Intro To Solid State Physics	
Total Hours		9-10

### Biology Concentration

Choose three of the following:		12
BIOL 3364	Plant Taxonomy	
BIOL 3409	General Ecology	
BIOL 3410	Human Biology	
BIOL 3420	Comparative Vertebrate Anatomy	
BIOL 3430	Plant Physiology	
BIOL 3450	Introductory Genetics	
BIOL 3461	Fish Wildlife Recreation Mngt	
BIOL 3470	General Microbiology	
BIOL 3480	Developmental Biology	
BIOL 3490	Histology	
BIOL 3492	Plant Morphology	
BIOL 4330	Aquatic Biology	
BIOL 4410	General Entomology	
BIOL 4430	Vertebrate Natural History	
BIOL 4460	Parasitology	
BIOL 4470	Animal Behavior	
BIOL 4471	Invertebrate Zoology	
BIOL 4490	Cell Biology	
Total Hours		12

### Chemistry Concentration

CHEM 2325 & CHEM 2125	Organic Chemistry II: Lecture and Organic Chemistry II: Lab	4
CHEM 3367	Intro Inorganic Chemistry	3
Choose two of the following:		6-7
CHEM 3339	Biochemistry II	
CHEM 4442	Air Quality	

CHEM 3361

Discoveries In Chm &amp; Textiles

Total Hours

13-14

**First Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area I (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareai)	3 Component Area I (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareai)	3
Component Area V (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareav)	3 Component Area VI (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareavi)	3
Component Area VI (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareavi)	3 BIOL 1436 <sup>1</sup>	4
BIOL 1411 <sup>1</sup>	4 CHEM 1411	4
MATH 1410 <sup>2</sup>	4	
	17	14

**Second Year**

<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>
Component Area IV (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareaiiv)	3 Component Area VII (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareavii)	3
Component Area VII (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareavii)	3 Component Area VIII (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareaviii) <sup>3</sup>	3

BIOL 1413	4 Component Area IX (catalog.shsu.edu/ undergraduate/ academic-policies- procedures/degree- requirements- academic-guidelines/ core-curriculum/ #componentareaix)	3	
CHEM 1412	4 PHYS 1301 & PHYS 1101	4	
GEOG 1401	4 GEOL 1403	4	
	18	17	
<b>Third Year</b>			
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours Summer</b>	<b>Hours</b>
BIOL 2440	4 Concentration Courses	6-10 CISE 3384	3
Concentration Course	3-4 BIOL 3390	3 CISE 4380	3
GEOL 1404	4 GEOL 3330 or CHEM 3438 <sup>5</sup>	3 CISE 4378	3
PHYS 1302 & PHYS 1102	4 STAT 3379	3	
PHYS 1403 or CHEM 2323 (and CHEM 2123) <sup>4</sup>	4		
	19-20	15-19	9
<b>Fourth Year</b>			
<b>Fall</b>	<b>Hours Spring</b>	<b>Hours</b>	
CISE 4364	3 CISE 4394	3	
CISE 4377	3 CISE 4396	3	
	CISE 4397	3	
	6	9	

Total Hours: 124-129

- <sup>1</sup> BIOL 1411 and BIOL 1436 satisfy Core Curriculum requirement for Component Area III (Life and Physical Science) and the major.
- <sup>2</sup> MATH 1410 satisfies Core Curriculum requirement for Component Area II (Mathematics) and one semester credit hour for Component Area IX (Component Area Option) as well as the major.
- <sup>3</sup> PHYS 1301 recommended for Core Curriculum requirement Component Area VIII.
- <sup>4</sup> PHYS 1403 taken for Biology and Earth Science concentration, and CHEM 2323 and CHEM 2123 taken for Chemistry and Physics Concentration.
- <sup>5</sup> GEOL 3330 taken for Biology, Earth Science, and Physics Concentration, and CHEM 3438 taken for Chemistry Concentration.

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Total Hours 9-12

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PHYS 4333	Light And Optics	
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Total Hours 9-10

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Total Hours 12

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CHEM 3367	Intro Inorganic Chemistry	3

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Total Hours 13-14