

CHEMISTRY, BACHELOR OF SCIENCE (B.S.)

Freshman Year		Credit Hours
CHEM 161 & CHEM 163	Chemistry I and Chemistry Laboratory I	4
CHEM 162 & CHEM 164	Chemistry II and Chemistry Laboratory II	4
ENGL 110	Composition I	3
ENGL 111	Composition II	3
MATH 260	Calculus I	4
MATH 261	Calculus II	4
PHYS 105 & PHYS 112	Introduction to Physics I and General Physics I	4
PHYS 106 & PHYS 113	Introduction to Physics II and General Physics II	4
CHEM 132	Professional Practices in CHEM	1
Credit Hours		31
Sophomore Year		
CHEM 218 & CHEM 219	Analytical Chemistry I and Analytical Chemistry Lab I	4
CHEM 318 & CHEM 319	Analytical Chemistry II and Analytical CHEM Laboratory II	4
CHEM 305 & CHEM 307	Organic Chemistry I and Organic Chemistry Lab I	4
CHEM 306 & CHEM 308	Organic Chemistry II and Organic Chemistry Lab II	4
CHEM 214 & CHEM 215	Inorganic Chemistry and Inorganic Chemistry Laboratory	4
GE Literature		3
CHEM 210	Hist of Blk & Underrep Chemist	1
GE Humanities		3
BIOL 120	Principles Of Biology I	4
Credit Hours		31
Junior Year		
CHEM 401	Physical Chemistry I	3
CHEM 402	Physical Chemistry II	3
Restricted Elective		6
CHEM 320	Org Reaction Mech/Mod Inst	3
MATH/STAT (Restricted MATH Elective)		3
GE Health & Wellness		2
CHEM 330	Intro Chemical Research	2
CHEM 404	Experimental Physical Chem	1
GE History		3
GE Global Studies		3
Credit Hours		29
Senior Year		
CHEM 422 & CHEM 423	Biochemistry I and Biochemistry Laboratory I	4
CHEM 424 & CHEM 425	Biochemistry II and Biochemistry Laboratory II	4
CHEM 441	Research Laboratory I	2
CHEM 442	Research Laboratory II	2
Unrestricted Electives		9
CHEM 420	Seminar In Chemistry	1
GE Social Science		3
CHEM 414 & CHEM 415	Advanced Inorganic Chemistry and Adv Inorganic Chemistry Lab	4
Credit Hours		29
Total Credit Hours		120

Students not ready for Calculus I and II in their freshman year may take MATH 150; however, the credits do not count toward the total number of semester hours needed to meet the degree requirements. Restricted electives can be selected from upper level math or statistics courses such as MATH 360, MATH 350, or STAT 330. Upper level (200 level or above) chemistry, biology, mathematics or computer science courses may also be used to satisfy restricted electives.

General Education Requirements for the B.S. Degree

Code	Title	Credit Hours
GE English Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#geenglishselectivestext)		
GE Global Studies Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#geglobalstudiestext)		
GE History Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#gehistoryelectivestext)		
GE Humanities Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#geselectivestext)		
GE Literature Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#geliteratureelectivestext)		
GE Science Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#gescienceelectivestext)		
GE Social Science Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#gesocialscienceelectivestext)		
GE Wellness/Health Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#gewellnesshealthtext)		
GE Mathematics Electives (http://catalog.vsu.edu/undergraduate/general-education-programs/#gemathematicselectivestext)		

Total Requirements Semester Hours: 33

A single course may simultaneously fulfill a general education requirement and a departmental or major/minor requirement. A single course cannot be used to fulfill more than one general education requirement. Department or major/minor areas may opt to exceed the minimum credit hour requirements above.

Code	Title	Credit Hours
CHEM 132	Professional Practices in CHEM	2
CHEM 161	Chemistry I	3
CHEM 162	Chemistry II	3
CHEM 163	Chemistry Laboratory I	1
CHEM 164	Chemistry Laboratory II	1
CHEM 214	Inorganic Chemistry	3
CHEM 215	Inorganic Chemistry Laboratory	1
CHEM 218	Analytical Chemistry I	3
CHEM 219	Analytical Chemistry Lab I	1
CHEM 305	Organic Chemistry I	3
CHEM 306	Organic Chemistry II	3
CHEM 307	Organic Chemistry Lab I	1
CHEM 308	Organic Chemistry Lab II	1
CHEM 318	Analytical Chemistry II	3
CHEM 319	Analytical CHEM Laboratory II	1
CHEM 401	Physical Chemistry I	3

CHEM 418	Advanced Organic Chemistry	3
CHEM 422	Biochemistry I	3
CHEM 423	Biochemistry Laboratory I	1
Total Credit Hours		40

Code	Title	Credit Hours
CHEM 132	Professional Practices in CHEM	2
CHEM 330	Intro Chemical Research	2
CHEM 402	Physical Chemistry II	3
CHEM 404	Experimental Physical Chem	1
CHEM 414	Advanced Inorganic Chemistry	3
CHEM 415	Adv Inorganic Chemistry Lab	1
CHEM 420	Seminar In Chemistry	1
CHEM 441	Research Laboratory I	2
CHEM 442	Research Laboratory II	2
PHYS 105	Introduction to Physics I	3
or PHYS 112	General Physics I	
PHYS 105	Introduction to Physics I	1
or PHYS 112	General Physics I	
PHYS 106	Introduction to Physics II	3
or PHYS 113	General Physics II	
PHYS 106	Introduction to Physics II	1
or PHYS 113	General Physics II	
BIOL 120	Principles Of Biology I	3
BIOL 120	Principles Of Biology I	1
Total Credit Hours		29

Code	Title	Credit Hours
Restricted Electives		6
Unrestricted Electives		10
Total Credit Hours		16

Code	Title	Credit Hours
General Education		35
Core Requirements		40
Major/Concentration Requirements		29
Electives		16
Total Credit Hours		120