

4-Year Degree Plan

Bachelor of Science (B.S.) in Chemistry with **General Chemistry Concentration**



Catalog: 2019-2020 Type: Freshman Last updated: 3/6/2019

This Plan illustrates how students can meet degree course requirements in four years. Some courses listed below may be taken in an alternate order. Consider prerequisites, prior credit, course availability, and student needs in developing the individual plan*. For information about prerequisites and other program requirements, consult the appropriate Catalog Program of Study and an advisor. Note: NC community college transfers should consult one of the transfer plans.

Year/Term Course/Requirement	Cr	Pre	Req.	Note/Equivalent	Year/TermCourse/Requirement	Cr	Pre	Req.	Note/Equivalent
Year 1 Fall Semester	14				Year 1 Spring Semester	16			
ENGL 110 - English Composition I	3	N	2.1		CHEM 141 - General Chemistry I Lecture	3	Y	5.1	
MATH 131 - Algebra and Trigonometry	3	Y	3.2		CHEM 141L - General Chemistry I Lab	1	Y	5.1	
NSCI 100 – Calculations in Sciences	1	N	9.3		ENGL 120 - English Composition II	3	Y	4	
UNIV 101 - Freshman Seminar I	1	N	1.1		UNIV 102 - Freshman Seminar II	1	N	1.1	
Critical Thinking (PHIL 110 Or PHIL 220)	3	N	3.1		Core Global Literacy	3	C	7	
Core Humanities and Creative Arts	3	C	6		Core Social Sciences	3	N	5.2	
					Core Transitional Life	2	N	1.2	
Year 2 Fall Semester	17				Year 2 Spring Semester	14			
CHEM 161 - General Chemistry II Lecture	3	Y	5.1		BIOL 150 - Principles of Biology	3	Y	9.3	
CHEM 161L - General Chemistry II Lab	1	Y	5.1		BIOL 150L - Principles of Biology Lab	1	Y	9.3	
MATH 142 - Calculus with Analytic Geometry I	4	Y	9.3		CHEM 200 - Chemical Lit: Search & Analysis	2	Y	9.1	
Core Ethics and Civic Engagement	3	C	8		CHEM 223 - Organic Chemistry I Lecture	3	Y	9.1	
Oral Communication (BADM 215 Or SPEE 200)	3	Y	2.2		CHEM 223L - Organic Chemistry I Lab	1	Y	9.1	
Science and Math Elective		C	11		MATH 241 - Calculus with Analytical Geometry I		Y	9.3	
Year 3 Fall Semester	16				Year 3 Spring Semester	16			
CHEM 211 - Analytical Chemistry Lecture	3	Y	9.1		BICH 411 - Biochemistry I	3	Y	9.1	
CHEM 211L - Analytical Chemistry Lab	1	Y	9.1		CHEM 311 - Instrumental Analysis Lecture	3	Y	9.1	
CHEM 225 - Organic Chemistry II	3	Y	9.1		CHEM 311L - Instrumental Analysis Laboratory	2	Y	9.1	
CHEM 225L - Organic Chemistry II Lab	1	Y	9.1		CHEM 350 - Introduction to Undergraduate Resea	rch 1	N	9.1	
MATH 242 - Calculus with Analytical Geometry I	II 4	Y	9.3		PHYS 126 - College Physics II	3	Y	9.3	
PHYS 125 - College Physics I	3	Y	9.3		PHYS 126L - College Physics Lab II	1	Y	9.3	
PHYS 125L - College Physics I Lab	1	Y	9.3		Chemistry Elective	3	C	9.2	
Year 4 Fall Semester	15				Year 4 Spring Semester	13			
CHEM 313 - Physical Chemistry I	3	Y	9.1		CHEM 314 - Physical Chemistry II	3	Y	9.1	
CHEM 313L - Physical Chemistry I Lab	1	Y	9.1		CHEM 314L - Physical Chemistry II Lab	1	Y	9.1	
CHEM 421 - Inorganic Chemistry	3	Y	9.1		CHEM 499 - Chemistry Capstone	3	Y	9.1	
CHEM 450 – Undergraduate Research	2	Y	9.1		Chemistry Elective	3	C	9.2	
CHEM 301 - Introduction to Polymer Science	3	Y	9.1		Science and Math Elective	3	C	11	
Chemistry Elective	3	C	9.2						

General Chemistry Concentration prepares students for careers as professional chemists and for graduate school. The curriculum offers a thorough fundamental knowledge of the major fields of chemistry, covering the general areas of analytical chemistry, biochemistry, inorganic chemistry, organic chemistry, and physical chemistry, plus many more



4-Year Degree Plan

Bachelor of Science (B.S.) in Chemistry with **General Chemistry Concentration**



Last updated: 3/6/2019

Catalog: 2019-2020

DEGREE TOTAL: 121 CREDITS

Type: Freshman

specialized courses including computational chemistry, bioanalytical chemistry, bioinorganic chemistry, nanoscience and nanotechnology, medicinal chemistry, separation science, special topics in chemistry. Students gain laboratory experience in organic synthesis, analytical methods, physical chemical measurements, and spectroscopy. Undergraduates are encouraged to take full advantage of the scientific opportunities available in the department by joining a research group.

*See next page for requirements and notes

Requirements/Notes

- **Pre.** Prerequisite: Y (Yes) Course/Requirement has prerequisite(s). N (No) Course/Requirement has no prerequisite. C (Check) Some courses satisfying requirement have prerequisites and/or courses have non-prerequisite restrictions. Check Catalog for details.
- * Recommended. For transfer courses, following recommendations will reduce or eliminate the need to take additional courses at FSU. For FSU courses, following recommendations will optimize the student's educational experience. If in doubt, consult an advisor.
- 1.1. Transitional UNIV. (UNIV 101 And UNIV 102) Or UNIV 110 Or UNIV 111. UNIV 101-UNIV 102 required for all first-time students; UNIV 110 required for transfer students with fewer than 30 transfer credits. Students do not earn credit if requirement is waived. UNIV 111 may be required based on academic performance.
- 1.2. Transitional Life. ENTR 100 Or FINC 100 Or GEOG 110 Or HEED 112 Or PEDU 101 Or PEDU 107 Or PEDU 112 Or PEDU 120 Or PEDU 122 Or PEDU 130 Or PEDU 132 Or PEDU 140.
- **2.1.** Written Communication. ENGL 110.
- **2.2.** Oral Communication. BADM 215 Or SPEE 200.
- 3.1. Critical Thinking. PHIL 110 Or PHIL 220. Not required for students with 60+ transfer credits. Students do not earn credit if requirement is waived.
- **3.2.** Quantitative Reasoning. MATH 131. MATH 121 may be required based on profile scores. Some core courses require a one-hour lab.
- **4.** Information Literacy. ENGL 120.
- 5.1. Natural Sciences. CHEM 141 And CHEM 141L And CHEM 161 And CHEM 161L.
- 5.2. Social Sciences. CRJC 210 Or ECON 211 Or ECON 212 Or GEOG 210 Or HIST 212 Or POLI 200 Or POLI 210 Or POLI 220 Or PSYC 210 Or SOCI 210.
- 6. Humanities and Creative Arts. ART 210 Or COMM 220 Or ENGL 220 Or ENGL 223 Or ENGL 240 Or ENGL 250 Or ENGL 253 Or HIST 210 Or HUMN 211 Or HUMN 212 Or MUSI 210 Or MUSI 225 Or MUSI 260 Or PHIL 210 Or RELI 215 Or THEA 203.
- Global Literacy. ANTH 210 Or ART 150 Or ART 215 Or BADM 210 Or CHIN 110 Or CHIN 120 Or ENGL 211 Or ENGL 212 Or FREN 110 Or FREN 120 Or GEOG 220 Or GLBL 200 Or HIST 110 Or HIST 270 Or PHIL 211 Or POLI 230 Or SOCI 150 Or SPAN 110 Or SPAN 112 Or SPAN 120 Or SPAN 122 Or THEA 242 Or YORU 110 Or YORU 120. Not required for students with 30+ transfer credits from a foreign institution. Students do not earn credit if requirement is waived.
- 8. Ethics and Civic Engagement. BADM 220 Or COHE 200 Or CRJC 203 Or EDUC 211 Or ENGL 232 Or ENGL 233 Or ETCE 101 Or ETCE 102 Or ETCE 103 Or ETCE 200 Or GEOG 270 Or HCM 200 Or HIST 211 Or PHIL 120 Or PHIL 212 Or PNUR 210 Or POLI 110 Or POLI 150 Or SPTM 210 Or SWRK 220. Not required for students with 60+ transfer credits. Students do not earn credit if requirement is waived.
- 9.1. Chemistry Courses. BICH 411 And CHEM 200 And CHEM 211 And CHEM 211L And CHEM 223 And CHEM 223L And CHEM 225 And CHEM 225L And CHEM 301 And CHEM 311 And CHEM 311L And CHEM 313 And CHEM 313L And CHEM 314L And CHEM 314L And CHEM 350 And CHEM 421 And CHEM 450 And CHEM 499.
- 9.2. Chemistry Electives. CHEM 400 Or CHEM 422 Or CHEM 423 Or CHEM 424 Or CHEM 430 Or CHEM 431 Or BICH 412 Or MATS 311 Or MATS 321 Or MATS 360 Or MATS 423 Or MATS 460.
- 9.3. Correlative Requirements. BIOL 150 And BIOL 150L And MATH 142 And MATH 241 And MATH 242 And NSCI 100 And PHYS 125 And PHYS 125L And PHYS 126 And PHYS 126L.
- 11. Science and Mathematics electives. CSC 105 Or any BICH, BIOL, BTCH, CHEM, FORS, MATH, MATS, PHYS, or STAT courses at the 200 level or above.