

**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\*. Courses fulfilling requirements are listed on the reverse. 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/Term	Course/Requirement	Cr	Pre	Req.	Note/Equivalent
<b>Year 1 Fall Semester</b>						<b>Year 1 Spring Semester</b>					
<b>14</b>						<b>15</b>					
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	MATH 142 - Calculus with Analytic Geometry I		4	Y		9.3
Core Critical Thinking (PHIL 110 Or PHIL 220)		3	N		3.1	UNIV 102 - Freshman Seminar II		1	N		1.1
Core Humanities and Creative Arts		3	C		6	Core Global Literacy		3	C		7
<b>Year 2 Fall Semester</b>						<b>Year 2 Spring Semester</b>					
<b>15</b>						<b>16</b>					
BIOL 150 - Principles of Biology		3	Y		9.3	BIOL 200 - Cellular Biology		3	Y		10
BIOL 150L - Principles of Biology Lab		1	Y		9.3	BIOL 200L - Cellular Biology Lab		1	Y		10
CHEM 161 - General Chemistry II Lecture		3	Y		5.1	CHEM 200 - Chemical Lit: Search & Analysis		2	Y		9.1
CHEM 161L - General Chemistry II Lab		1	Y		5.1	CHEM 223 - Organic Chemistry I Lecture		3	Y		9.1
MATH 241 - Calculus with Analytic Geometry II		4	Y		9.3	CHEM 223L - Organic Chemistry I Lab		1	Y		9.1
Core Oral Communication - SPEE 200*		3	Y		2.2	PHYS 125 - College Physics I		3	Y		9.3
						PHYS 125L - College Physics I Lab		1	Y		9.3
						Core Transitional Life		2	N		1.2
<b>Year 3 Fall Semester</b>						<b>Year 3 Spring Semester</b>					
<b>15</b>						<b>15</b>					
BIOL 230 - Human Anatomy and Physiology I		3	Y		10	BICH 411 - Biochemistry I		3	Y		9.1
CHEM 211 - Analytical Chemistry Lecture		3	Y		9.1	BIOL 240 - Human Anatomy and Physiology II		3	Y		10
CHEM 211L - Analytical Chemistry Lab		1	Y		9.1	BIOL 330 - Microbiology and Immunology		3	Y		10
CHEM 225 - Organic Chemistry II		3	Y		9.1	BIOL 330L - Microbiology and Immunology Lab		1	Y		10
CHEM 225L - Organic Chemistry II Lab		1	Y		9.1	CHEM 311 - Instrumental Analysis Lecture		3	Y		9.1
PHYS 126 - College Physics II		3	Y		9.3	CHEM 311L - Instrumental Analysis Laboratory		2	Y		9.1
PHYS 126L - College Physics Lab II		1	Y		9.3						
<b>Year 4 Fall Semester</b>						<b>Year 4 Spring Semester</b>					
<b>16</b>						<b>15</b>					
BICH 412 - Biochemistry II		3	Y		10	BICH 413 - Biochemistry III		3	Y		10
BICH 421 - Biochemistry Laboratory		1	Y		10	BTCH 310 - Immunology		3	Y		10
BIOL 310 - Principles of Genetics		3	Y		10	CHEM 499 - Chemistry Capstone		3	Y		9.1
CHEM 315 - Physical Chemistry for Life Sciences		3	Y		9.1	Biochemistry Elective		3	C		9.2
Biochemistry Elective		3	C		9.2	Core Ethics and Civic Engagement - HCM 200*		3	N		8
Core Social Sciences		3	C		5.2						

**DEGREE TOTAL: 121 CREDITS**

\*See next page for requirements and notes

**Biochemistry Concentration** is designed to better serve our students who are interested in the application of chemical principles to the life sciences. Student who complete this course of study will have a fundamental background in chemistry as well as a broad knowledge of biochemistry and biology and will be prepared for the following career choices: graduate school in biochemistry or related subject areas, medical school, forensics, dentistry, pharmaceutical industry, chemical industry. Students in the Biochemistry Concentration are highly encouraged to spend one or more semesters in a biochemistry or related research lab doing undergraduate research.

- 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.
  7. 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 120 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 311 And CHEM 311L And CHEM 315 And CHEM 499.
  - 9.2. Biochemistry Electives. Select from: CHEM 422, CHEM 424, CHEM 425, CHEM 426.
  - 9.3. Correlative Requirements. BIOL 150 And BIOL 150L MATH 142 And MATH 241 And NSCI 100 And PHYS 125 And PHYS 125L And PHYS 126 And PHYS 126L.
  10. Concentration. BICH 412 And BICH 413 And BICH 421 And BIOL 200 And BIOL 200L And BIOL 230 And BIOL 240 And BIOL 310 And BIOL 330 And BIOL 330L And BTCH 310.